



A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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POOR WHEAT RESPONSIBLE FOR LOW PRICES.

Says a Northwestern grain dealer: "Much comment is made regarding the low price many farmers are receiving this year for their wheat. Allow me to say the reason is chiefly because farmers follow every 'will-of-the-wisp' that appears referring to seed. One year it is Ladoga, another blue-stem, then white Fife, and after two or three years of disaster they come back to that they should never have left—red Fife. This year many farmers are losing from 5 to 10 cents a bushel on account of having sown white Fife. New York exporters call it rice wheat, while some who were foolish enough to sow Ladoga are losing even more. The staple as well as desirable wheat on which our reputation was made is red Fife, and any agricultural college or newspaper that advises anything else does incalculable damage. As one well acquainted both with its yielding as well as its milling qualities, I caution farmers against white Fife and Ladoga especially."

MISSOURI INSPECTION.

H. W. Hickman, a member of the Missouri Board of Warehouse Commissioners, has issued a manifesto to his constituents, which, if taken as it reads, might give grain merchants and millers outside of Missouri a bad opinion of our grain inspection. Mr. Hickman believes he has made a political move, and perhaps he has, but the public should not be misled on that account.

He speaks of his efforts to build up a competent inspection department, omitting any mention of the fact that he was one of two members of the board who were willing, not very long ago, to maintain an inspection by telephone in Kansas City. He also omits to state that some of the men he forced upon the department were the individuals who, in times past, did much to discredit Missouri inspection, both at home and abroad. In fact he tries to ignore the truth that he is a cheap politician, who cares more for what he can get out of his office than what he invests in it, as the records show.

As long as Commissioner Hickman was allowed to

practice nepotism and pay political debts by parceling out offices requiring incumbents of commercial ability to backwoods retainers, the goose was in the ascendancy, but is grief stricken now that he has lost his pull. It is high time political rows ceased to extend to the grain inspection service, and if persons in authority take some other view of it they must not kick on "the change" they get. We are fairly well posted on Missouri grain inspection history and shall not be bashful as to an expression of opinion. The grain inspection department is a business, not a polit-



EXHIBIT OF THE ALBERT DICKINSON CO. IN THE AGRICULTURAL BUILDING.

ical institution, on which account Mr. Hickman is out of order and will, if he is wise, sit down.—*Modern Miller.*

The demand is greater than the supply of free seed grain, which the board of railroad commissioners have undertaken to secure to the destitute farmers of Western Kansas. Only one county has thus far volunteered to call a mass meeting for the purpose of procuring the grain for free distribution. This county is Chautauqua, way down on the territory line. All the rest of the counties heard from have declined on the ground that they were unable.

AN INTERESTING EXHIBIT OF SEEDS.

One of the most interesting exhibits in the Agricultural Building at the World's Fair is the seed exhibit of The Albert Dickinson Company in Section C, west main building. As will be seen from the accompanying illustration the exhibit is artistically constructed and attractive. It is about 15x45 feet. The panels, posts and cornice are decorated with seeds. The panels and posts, like the frieze, is decorated with seeds covered with glass; different kinds of seed being used in each section of frieze and in each panel. In center of booth is a writing desk and register for visitors, also chairs where those who wish may rest. A Clipper Cleaner for which the company is agent is also shown.

In one end of the booth is a pyramid made up of nine tiers of oval shaped glass bottles filled with samples of all kinds and varieties of seeds.

In the other end is a pyramid decorated with popcorn and surmounted with a large globe, which is encircled with a banner bearing the truthful statement, "Dickinson's Seeds Cover the Earth." At the base of the pyramid are oval glass bottles filled with seed and just above this tier is a tier of small sacks filled with seeds and covered with glass. At regular intervals on the pyramid are cubes ornamented with corn and surmounted by glass globes filled with seeds.

Visitors are welcome and grain dealers are especially invited to call and examine the seeds. Each will be well repaid for the time spent. The company handles red, white and Alsike clover, alfalfa, timothy, Hungarian, common and German millet, blue grass, orchard grass, red top, meadow, Fescue and all natural grass; broom corn, sugar cane, sunflower, peas and beans, pop corn, bird seeds, and seed grains, such as wheat, oats, corn, rye, barley and buckwheat. Parties desiring to buy or sell should correspond with The Albert Dickinson Co., office Clark and Sixteenth streets, Chicago.

Hay shippers are considerably inconvenienced by the small box cars now in use. Railroad companies should build a line of cars especially for this purpose or reduce the required tonnage.—*Hay Trade Journal.*

MIXING WEIGHTS.

BY OBSERVER.

We hear much talk about mixing grades at terminal elevators—a process which requires a thorough knowledge of and experience in determining the exact grade value of wheat. In order to make a lot of No. 2 Red wheat the mixer must know just how much No. 3 or other inferior grade his higher grade will stand without putting it in jeopardy with the inspection. Mixing grades is a science, or an art, and when artistically performed results in an increase of shekels in the purse of the mixer.

None of these nice things can be said of mixing weights. It is not an art. It does not affect the shekel account of the perpetrator. No man's salary was ever raised a notch for his ability to mix weights. Yet they are mixed occasionally. How? Well, its easy. No one needs much, if any, practice to do it successfully. It has occurred, to my knowledge, perhaps a dozen times in the elevators where I earned enough to patch over nearly a score of years. I have known it to occur in other elevators, and it's liable to occur in any elevator.

In this wise it happened at our elevators: In each elevator were three track scales. In busy season three cars were unloaded at the same time. Thus it was usually the case that these gross weights were entered in the tally book, and as the cars were unloaded the tare weights were entered in the order that they were "all clear." Sometimes the car on the middle scale was ready for tare weight first; sometimes the car on the north end, sometimes on the south end. It very often happened that the cars were not clear in the order that their respective gross weights were entered on the tally book. Let us suppose there are three gross weights standing on the tally book. Suppose further that the middle car contained a small load and is therefore the first to be "all clear." The weighman, in entering the tare of the middle car, may, in a fit of absentmindedness, enter the tare weight of the middle car against the gross weight of the first weight. Wouldn't he detect the error by comparing the car number on the book with the number on the car? Yes, if he compared them. But men whose mistakes are of such a nature that very few can ever be detected, become very expert.

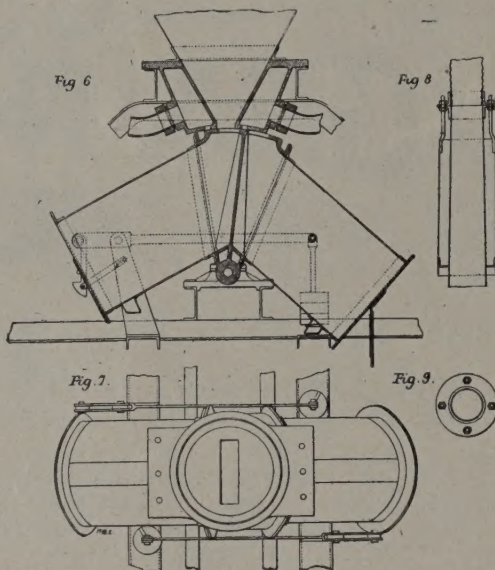
In the above case he happens to be near the middle car when it is "all clear," and his tally book happens to be at the first scale. Does he walk to the first scale for his book and carry it to the middle scale when he must, in the very next minute, go back to the first scale? Isn't it a good deal easier to remember the tare weight of the middle car till he gets to the first scale? Saves an extra trip and strengthens his memory. Now, if he is in the least absent-minded, the fact that he is standing at the first scale is apt to induce the impression that he is recording the weights of the car on this scale; and the fact that he is trying to remember the weights of the middle car don't help matters much. But this is only one phase of the matter.

Mixing the weights in elevators using hopper scales is also an easy matter, unless a system for checking car numbers is persistently adhered to. When hopper scales are used the car numbers are piped through a speaking tube to the weighman in the scale loft. Very often two or more cars are being unloaded at the same time with one weighman attending to two or more scales. As the grain is being elevated the weighman makes his entries of car numbers, grade, bin, and so forth, so that before the two or more cars are ready to be weighed he has all the other entries made in his tally book but the weights. Now, with his wits about him, the weighman should make no mistake in getting the weights of different loads against their respective car numbers. But a man's wits are not always present; if they were, mistakes wouldn't happen at all.

Usually, in case of a mix in weights, one shipper will get too much and the other too little. The mistake is first discovered by the shipper, who suffers a shortage. He writes about it. If the mistake was

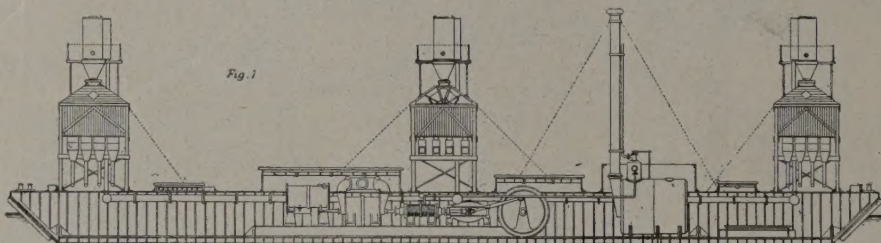
made in track scale weighing and happened by setting the weight of the empty car against the wrong gross weight, it is easy to locate and comparatively easy to correct; but in case of gross weight being placed opposite the wrong car number, or when, in case of hopper scale weighing, the net is placed opposite the wrong car number, it is a tangle which is not easily straightened out. The man who has received too much does not want to be convinced of the fact, and as he has the money for his wheat at about the same time the other party discovers his shortage, it is pretty difficult to make him believe that he has had an overplus.

After our first experience we found it was pleasanter



A NEW PNEUMATIC GRAIN ELEVATOR.

to say nothing to the man who was over until we had deducted the amount out of the next car; otherwise, he was liable to see some other market for his wheat. An effectual and reasonable precaution against errors of mixing weights is to have a space on the inspection ticket for the weights also. This inspection ticket should not be removed from the side of the car (where it is usually tacked) until the car is ready to be run out of the elevator. No mistake could possibly occur if the weights were first recorded on the ticket attached to the car, and then in tally book. This operation would take one or two seconds more time for



A NEW PNEUMATIC GRAIN ELEVATOR.

the weighing of each car, but the check would be effectual and worth much more than the extra time of the weighman in recording the weights the second time.

Broom corn valued at \$14,217 was exported in July, against an amount valued at \$6,222 exported in July, 1892. During the seven months ending with July broom corn valued at \$98,916 was exported, compared with \$68,260 for the corresponding months of 1892.

During July there was no linseed or flaxseed imported and none in July, 1892. There were 96,108 bushels, valued at \$124,149, imported during the seven months ending with July, against 46,794 bushels, valued at \$55,459, imported during the corresponding month of 1892. Flaxseed or linseed aggregating 158,899 bushels, valued at \$182,738, was exported in July, against 407,745 bushels, valued at \$465,576, exported in July, 1892. During the seven months ending with July 382,983 bushels, valued at \$445,282, were exported, compared with 1,004,464 bushels, valued at \$1,097,590, exported during the corresponding months of 1892.

A NEW PNEUMATIC GRAIN ELEVATOR.

About 1887 the pneumatic system was first used in this country to transfer grain. The "Cyclone" Grain Transfer Barge was constructed at Cleveland by Lyman Smith and taken to Buffalo, where it was used for some time in transferring grain from lake vessels to canal boats. It had great power and did wonderful work. Mr. Smith has added a system of steel storage tanks to his system of pneumatic transfer, and has a complete plant on exhibition just west of the north entrance to the Transportation Building at the World's Columbian Exposition.

An Englishman has recently completed a pneumatic plant for unloading grain from ocean vessels. By some it is claimed to be the first constructed, but it is not. A London contemporary, *Engineering*, says: The apparatus, as in use at Millwall, is shown in Fig. 1. It consists essentially of an air-exhausting plant, which creates a partial vacuum in a tank from which flexible pipes pass to the grain in the ship's hold. The air passing up these pipes to the tank carries the grain with it, the two being then separated from each other in the vacuum tank already mentioned. Referring to Fig. 1, the steam engine there shown is an ordinary compound engine, having cylinders 15 and 30 inches in diameter by four feet stroke, and running, when in full work, at about 40 revolutions per minute. This engine drives two air exhausters of somewhat peculiar construction, these peculiarities being necessitated by the fact that the air entering the cylinders is charged with a certain amount of dust from the grain. If any lubricant is employed in these cylinders, clogging is likely to arise, and hence it was found necessary to build them so that they could run dry. These exhausters take the air from an exhaust box, which communicates by piping with six vacuum tanks and separators, from which the grain pipes run to the ship's hold. These separators, six in all, are fixed in pairs in the three deck houses shown in Fig. 1.

In construction they are simply tanks of iron plate, with a taper bottom divided from the cylindrical part of the tank by a diaphragm. In the center of this diaphragm is a hole, through which passes a spout pointed downward, and which is connected to the grain pipe. The hole through the diaphragm is somewhat larger than the spout above mentioned. The air to the exhauster is drawn off from this tank at the top, and the air from the ship's hold, coming up to supply its place and carrying the grain with it, enters this tank through the spout at a considerable velocity, and the consequence is, the grain, owing to its inertia, is shot down into the bottom of the tapered portion of the tank, while the air finally escapes between the diaphragm and the spout into the upper part of the tank. So far the separation is complete, but it is further necessary to get the grain out of the tank without disturbing the

vacuum there. To this end the ingenious arrangement shown in Figs. 6 and 7 has been adopted. The tapered portion there shown represents the bottom of the tank, which is fed with grain through the spout, as already explained. From this place the grain passes through the port shown into one of two receptacles, which are alternately brought under the port, being pivoted on a horizontal shaft, as shown. The joint between these moving receptacles and the bottom of the tank is practically air-tight. As the receptacle in communication with the separator fills, it finally overbalances the weight shown and falls over to the left, bringing the other receptacle in position to be filled. The full receiver, being now out of communication with the tank, opens automatically to the air and the grain falls out through a door at the bottom of the receiver into a large hopper. From this hopper it is drawn off by an attendant into a set of four weighing machines, which weigh the grain in the usual four bushel lots, and from which it is finally discharged down through spouts into the barges, as shown in Fig. 3.

The grain pipes are 6 inches in diameter, and are of rubber, reinforced with wire to prevent them col-

lapsing when the vacuum is created inside them. The suction end of the pipe is fitted with a nozzle of the type shown in *Figs. 8 and 9*. This nozzle is of sheet metal, and has a sleeve of somewhat larger diameter around it, between which and the main nozzle there is thus an annular space. The air to the pipe passes down through this space to the nozzle, which, as will be seen, extends a little below the sleeve. The amount of this projection can be adjusted for different kinds of grain. Previous to the adoption of this outer sleeve trouble was experienced when the attendant sunk the nozzle too deeply in the grain, but the adoption of the simple device just described has completely overcome this difficulty.

With the conveyor now in use at Millwall, and which is named the "Mark-lane," 38 tons of grain have been lifted per hour by one of the pipes, and 100 tons of grain can be transferred per hour from a ship to three barges, by a total staff of eight men in all, and the consumption of 6 cwt. of coal. Only one man is required to look after each nozzle. No trimming of the grain is required, as the pipes can be taken to the grain in any part of the ship, and the grain of itself flows steadily toward the nozzle. The grain can be discharged as easily from the most inaccessible situations as from the most open ones. The pipes only occupy a few square inches of the total area through the hatchways, and hence other gear can be worked simultaneously, discharging other goods from the same hold. This feature is also of advantage in rainy weather, as by covering the hatchways and the barges by tarpaulins the cargo can be discharged as safely and as easily as in fine weather. In *Fig. 5* it is indicated how well adapted the system is for the direct discharge of a grain ship into a granary without interfering with other operations.

When the "Mark-lane" was first put to work, trouble arose from the fact that the conveyor abstracted from the cargo a portion of the dust, and complaints arose from the sellers because of the loss in weight. Arrangements were accordingly made whereby this dust was returned to the grain, but the buyers now prefer to accept separate delivery of the grain and the dust, as the value of the consignment is thus much improved. It will be seen that similar apparatus may be employed for either loading or discharging any grain-like material to or from ships or warehouses, and that, although the Millwall Docks machine is required to transfer 100 tons per hour from ship to barge, the working capacity of machines of this type is limited only by the steam power used, and the size and number of the conveying pipes.

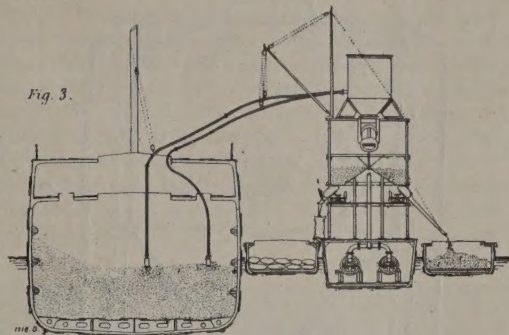
ADVANCES ON SHIPMENTS.

Among other questions of interest to dealers and shippers is the question of advances on consignments, and it is a prominent question, says the *Haymen's Gazette*. The commission man stands at the distributing point, receives your hay and distributes it through the market for the very best price he can get. The shipper must have confidence in his commission man. In fact, when a car of hay is consigned to a commission merchant he must put himself in the consignor's shoes. If he is in for business he does this. On the other hand the shipper needs money to carry on his business, as he cannot wait till the hay is sold and paid for, so he makes a draft on his commission man, with practically nothing but confidence to base his request upon. Taking in view this condition of business, we often wonder that so few bunco firms are in existence, and it is the greatest compliment to the class of men who compose the ranks of this great industry. However, the present manner in which advances are made is fraught with considerable risk, and any method that would be an improvement would be hailed with delight by shippers and middlemen. There is one thing that would aid confidence, and that is, if shippers would give references as to their

standing, it would save the commission man considerable trouble and give him a better opinion of you if you are not already known to him.

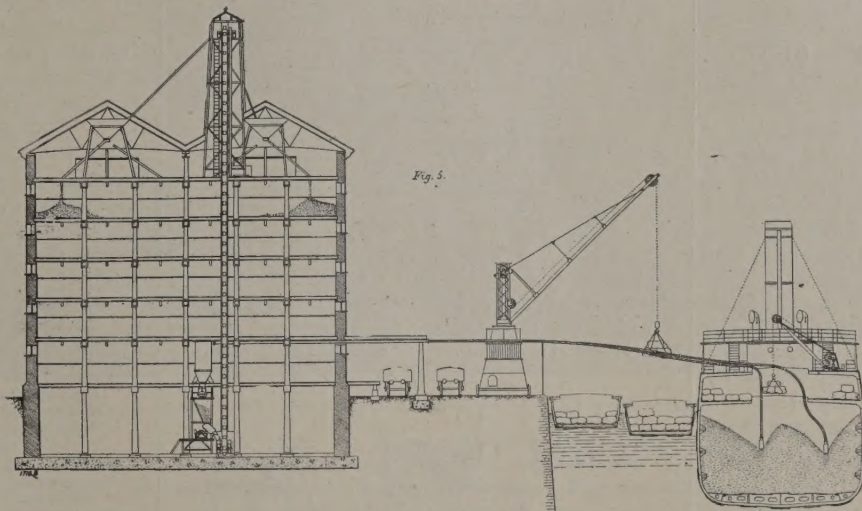
CLEAN BILLS OF LADING FOR BULK GRAIN.

The agitation concerning clean bills of lading for bulk grain which lately acquired added interest because of the enactment of the Kansas legislature requiring such bills of lading to be issued by the railroads, promises to continue until, voluntarily or otherwise, the railroads throughout the country shall have adopted the practice. It is not to be expected that



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the idea will be received by railroad men with universal favor, but it is nevertheless the fact that among these men are many who are ready to admit that the responsibility of a common carrier in this respect applies with equal force to railways as to water carriers, and there is no more reason outside of expediency, if that can be called a reason, why railways shall be exempt from receipting for and delivering a specified quantity of grain, than are water carriers. What can be more illogical, for illustration, than, on a shipment of grain from Kansas City to



A NEW PNEUMATIC GRAIN ELEVATOR.

New York via lake and rail, for a railroad to refuse to receipt for a received weight at Kansas City, but on its arrival at Chicago insist upon its fellow carrier, the vessel, giving a receipt in stated figures for the amount delivered by it and requiring a like amount or its equivalent in money to be delivered in Buffalo to be transported from that point to destination under the exempting clause "more or less."

Aside from the question of justice, other considerations make the adoption of such a rule by the railroads a most judicious proceeding. Nothing is more universal than the desired for, nor is anything more dangerous than the exercise of power when once it is found to be possessed. Heretofore in the period of railway development the people have been busy in taking advantage of the new conditions created by the rapid extension of the system. This growth has been so marvelous as to have kept in advance of the progress of the country and the energies of the people have been occupied in taking advantage of the opportunities thereby afforded rather than in attempting to discover wherein they might be still further benefited. Under such a condition it was only natural

that little attention should be paid to the inequities of railway requirements, and the rules adopted for the regulation of traffic therefore attracted little attention. As conditions became settled with the development of the country many of these rules, although found to be unjust and burdensome, were nevertheless continued, custom on the one hand and the expense involved in a re-organization of methods on the other, operating to maintain existing practices. Thus it happened that many of the requirements of the railways which at first were unnoticed, then tolerated, and later complained of, have now come to be matters of controversy between the railroads and the people, and to a large extent comprise what is known as the railroad problem.

In the progress of this controversy it has developed that the people, apparently with the sanction of the courts, possess controlling power, and as a result many things which having been demanded by them as of right and refused by the railroads are now through legislative enactment imposed upon the carriers. It is useless to argue that this is all wrong; that the railways should not be compelled to bear burdens which were never contemplated by either party, and which form no part of their charter obligations. It is not a question of abstract wrong but a question of power. It would therefore seem to be the course of wisdom on the part of railroads to so far as possible remove from the people all incentive toward the exercise of the power of which they find themselves possessed and which is not likely to be used with moderation.

It is for such reasons that at compliance with the law for a clean bill of lading is advocated. Primarily the requirement is just, and it is not believed that any sufficient argument can be maintained against it. Further, the question is one that vitally concerns those who possess the greatest amount of power for harm and who are at the same time the least well informed concerning such matters. These people are, however, easily appeased, and voluntary concessions on the part of railways looking to the recognition of what they deem their rights may be confidently relied upon to remove much of the antagonism which now exists between them and the railways. The voluntary provision by the railways for the accurate weighing of grain and the consequent issuing of clean bills of lading will be found to react in the prevention of unfavorable legislation to a degree far beyond the cost of the necessary apparatus to accomplish it.—*Railway Review*.

SHINPLASTERS FOR WHEAT IN THE NORTHWEST.

How to move the wheat crop of the Northwest during the present money famine is a problem that has puzzled financiers as well as grain dealers and railroad men. As a last resort the Empire Elevator Company of Minneapolis has issued a scrip that is answering the purpose. They are gotten up like currency, are of the shape of the greenback, lithographed in an ornate way and read as follows:

Countersigned: K. R. GUTHRIE, Secy. Empire Elevator Co.	FIVE.	\$5.00
	MINNEAPOLIS, MINN., Sept. 1, 1893.	
	On demand we promise to pay bearer	
	Five Dollars.....for grain purchased.	
	This obligation is good only when countersigned by K. R. Guthrie, secretary, and is payable at the First National Bank, Minneapolis, Minn.	
	EMPIRE ELEVATOR CO.	
	CHAS. A. PILLSBURY, Pres.	
	By G. W. PORTER, Secy.	
	No. 100.	

On the back of this temporary currency is ornate lathe work, the seal of North Dakota and the inscription "Under God the People Rule."

RESULTS OF UNDERBILLING.

That it makes a material difference whose ox is gored in the ordinary estimate of right and wrong finds frequent illustration in connection with railway matters, says the *Railway Review*. One of the most recent incidents of this kind was lately revealed in connection with the shipments of peaches from the state of Delaware to New York. For the convenience and benefit of the peach growers of that district the railway contracted to carry certain specified numbers of baskets of peaches at certain rates, the scale per basket decreasing in proportion to the number carried. In some cases the specified number was so great as to nearly fill a car, and the honest (?) shipper, thinking to escape detection because of this fact, would load in the car more than the specified number, thereby hoping to obtain free transportation for the excess loading. Detecting this imposition, the railroad company instituted the practice of checking out the baskets at destination, and where such excess loading occurred the peaches were disposed of by the company, the number delivered being made to correspond to the quantity received for.

What is now bothering the shippers is to know how to proceed to recover the value of the peaches thus sold. There is a clause in the interstate commerce law to the effect that any person who shall knowingly and willfully by any device obtain transportation for property at less than the regularly established rates shall be deemed guilty of fraud, and shall, upon conviction, be subject for each offense to a fine or imprisonment or both; hence the dilemma. If the shipper proves that he loaded more than was delivered he convicts himself under the statute, and unless he does so prove he cannot recover against the railway.

The incident contains two suggestions: for the shipper, that even in dealing with a railway company honesty is the best policy; and for the railroads, as indicating a possible means of breaking up a practice that is not confined to Delaware peach growers.

FOR WEIGHING GRAIN SHIPMENTS.

The Kansas enactment concerning clean bills of lading has already been referred to in these columns, as indicating the trend of commercial practice in the direction of railway bills of lading and the necessity which will thereby be imposed upon railroads of supplying means of ascertaining actual weights of bulk grain shipments. That such action will be deferred as long as possible is only natural, but that eventually it will obtain is inevitable, and the vital question therefore that confronts the railway in this connection is the best method of accomplishing the desired result at the least expense. It is probable that eventually this will be accomplished through the ownership and operation of elevators at the various points of shipment throughout the country, but that involves such a large expenditure as to preclude any reasonable expectation of its early accomplishment; but, however that may be, the demand for clean bills of lading will ere long be well nigh universal.

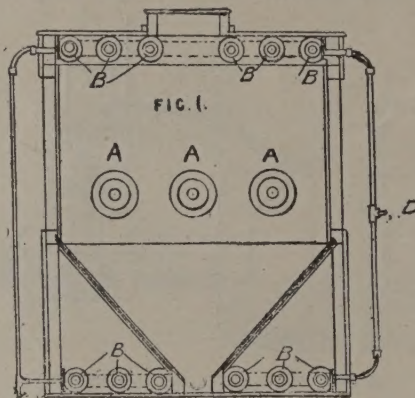
There is on exhibition at the Columbian Exposition a little device that will not only prove to be an almost indispensable adjunct to the correct operation of elevators by railways, but which may be made to serve a useful purpose anterior to that time. This device, which is made by the Chicago Automatic Scale Company, may be seen in continual operation with a miniature elevator in Machinery Hall, Section 26, Column O, 28.

These scales are made in various sizes, the largest stock size being for ten bushels of wheat, which will easily weigh and deliver a carload of grain in less than ten minutes. The machine is mechanically well made and adapted for the purpose for which it is designed. Its lasting qualities are attested by a large number of users, one of whom claims to have weighed in 1½ bushel drafts 2,750,000 bushels through a single scale since April, 1891, entirely without expense for repairs. The scales occupy a very small space, and one set in a locked weighing room of an elevator at a country station would enable the railroad agent at such station to determine with absolute accuracy the amount of grain loaded into a car simply by taking

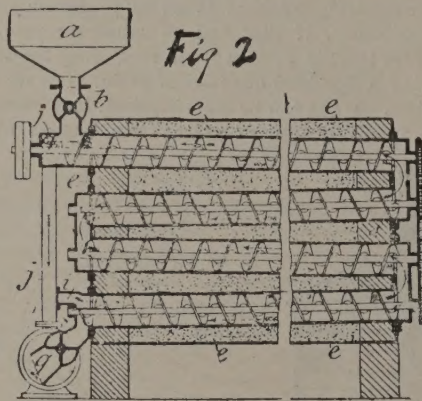
the record when notified that the loading of the car was completed; or, if desired, the scale could be set to stop automatically when a given amount was loaded. The device affords an easy and economical way of complying with the requirements of the Kansas law, and will be in every way more satisfactory than are the track scale of weights upon which the roads are now compelled largely to depend.—*Railway Review, Chicago.*

GRAIN DRIERS PATENTED.

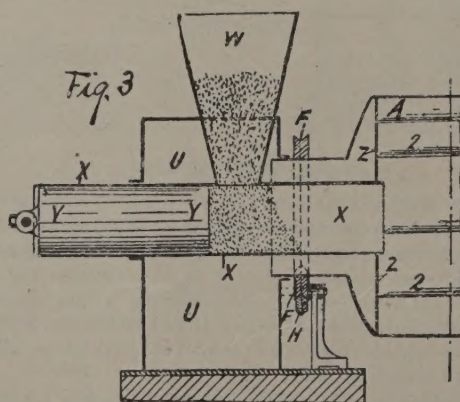
Every month several new grain driers are patented in the United Kingdom, and now and then one is pat-



ented in this country. The washing of Indian and Russian wheats in England makes the use of driers necessary. Here they are used principally to reduce the percentage of moisture in corn, to dry grain that



has been wet in transit or by storms, grain that is heating or for the purpose of preparing it for grinding. The use and demand for heaters and driers is continually increasing. If dealers and handlers



knew better how to use the driers to advantage many more would be used.

Letters patent for the three new driers illustrated herewith were recently issued by the British Patent Office. That shown in *Fig. 1* was issued to A. Wilson Bolton. It is intended for drying grain, malt, fibers, textile and vegetable substances, etc. The lower part of the chamber in which the grain is placed is made conical in form and of perforated material, and air is forced through the material in opposite directions alternately by means of a double acting pump, the air being heated as it enters the chamber by suitably arranged steam or hot water pipes. The pipes may be arranged variously. In *Fig. 1*, B are the heating pipes placed above and beneath the re-

ceptacle, and AAA are perforated pipes connected with the pump. In a modification, the heating pipes are caused to traverse the material and are surrounded by the perforated air supply pipes. The invention is specially applicable to the heating of malt prior to the processes of grinding and mashing.

The drier shown in *Fig. 2*, was patented by H. Williams of Longacre, Cheshire. In this apparatus for drying grain, malt, hops, pulse, seeds, tea, etc., the material is fed by a hopper *a* into the uppermost of a series of slightly inclined tubes arranged one above another, the material being passed along each tube by a worm or other suitable conveyor, and after passing in a zigzag fashion through each tube in succession, as shown by the dotted arrows, escapes finally from the end of the lowermost tube at *g*. Hot air is forced or drawn through the apparatus, being admitted at *i* and escaping at *j*. The feeding and discharge of the material may be regulated by revolving valves *b*, *g*. If desired, the capacity of the apparatus may be increased by arranging two or more tubes side by side on the same level. The whole is inclosed in a casing *e*, the space between which and the tubes is filled with sand, ashes or other substance which will have a tendency to check irregularities of temperature.

The drier shown in *Fig. 3* represents Smithson's Improved Method for Drying Grain. In this invention the cylinder *A* is supported at each end by a grooved pulley *F*, running on a pair of wheels *H*, and is driven by suitable mechanism. Hot air, etc., is supplied from a stove or furnace at one end, and escapes at the other into the chamber *U*, connected with a chimney. Escape of grain is prevented by the perforated disc *Z*. The grain is placed in the hopper *W*, and falls into the tube *X*, and is fed forward by the piston *Y*, suitably reciprocated. The cylinder *A* is fitted with inclined shelves *Z*, which agitate the material as the cylinder revolves, and cause it to work along to the discharge outlet.

WE'VE WHEAT TO SELL.

We don't want to urge a European war on account of the French-Siamese imbroglio, but if a war is on the cards, we trust that an all-wise Providence will lose no time in precipitating it. Wheat would then go up kiting. At all events we pray for a good, thorough scare that "the dogs of war" may be unloosed. Sick 'em Frenchy! sick 'em Siamese! sick 'em Johnny Bull! sick 'em Russia! sick 'em every doggone one of you! We've wheat to sell.—*Modesto Herald.*

We've wheat to sell. Let blood in rivers flow;
Let cannon hurl their hail of pain and death,
Let every morning bear its voice of woe,
And evening carry anguish on its breath;
Let men, gone mad, be turned to murderers all;
Let sweethearts weep and mothers sigh, in vain;
Let blood-stained summer turn to gory fall,
Each season bear its heritage of pain—
We've wheat to sell.

We've wheat to sell. Let awful corpses lie
Ungraved, uncoffined, food for vultures grim;
Let hungry wolves skulk where our brothers die,
To tear their shattered bodies limb from limb;
Let women weep. What care we for their tears?
Let deep wounds yawn. What care we for the woe?
Turn red the soil! Grief-stricken be the years!
We yet may smile as forth the grain ships go—
We've wheat to sell.

We've wheat to sell, and therefore blood is cheap;
Our gold we'll have, though it be red with gore;
Each corpse pays tribute to our coffers deep;
Each wound brings coin; so let us pray for more.
And still of God and Christ we dare to prate,
And sometimes talk of charity and love,
The while we make of war the treasury's bait,
And thus our Christian spirit strangely prove—
We've wheat to sell.

Stockton Mail.

Barley malt amounting to 322 bushels, valued at \$383, was imported in July, against 733 bushels, valued at \$1,009, imported in July, 1892. During the seven months ending with July 1,585 bushels, valued at \$1,932, were imported, compared with 4,026 bushels, valued at \$4,687, imported during the corresponding months of 1892. Of imported malt barley none was re-exported in July and none in July, 1892. There was none re-exported during the seven months ending with July, compared with 1,191 bushels, valued at \$830, re-exported during the seven months ending with July, 1892.

THE ANGOUMOIS GRAIN MOTH OR "FLY WEEVIL."

BY L. O. HOWARD, GOVERNMENT ENTOMOLOGIST.

The state of Virginia seems to be the original American home of this destructive grain pest. Originally, without doubt, a European insect, it was unquestionably imported by the early settlers of Virginia in their supplies of wheat brought from the old country. From this center it has spread in all directions through the country, but more extensively and injuriously toward the South than toward the North, since it does not thrive in a very cold climate. South of the wheat belt it is a very serious enemy to corn, reaching its maximum as a corn pest in Texas. In the extreme Northern states it is frequently found in grain which is stored, for one purpose or another, in buildings which are artificially warmed, but although frequently carried north during the summer in grain, it dies out in course of time in cold storehouses or mills. It affects not only corn and wheat, but all other stored cereal products.

The best of the early writings upon this subject are by Virginians. At the beginning of the present century it was investigated by Mr. Landon Carter, and later Mr. Edmund Ruffin, a well-known writer, paid some attention to this pest, and wrote several very able articles upon its habits and the best measures to be taken against it. Since the war the literature upon this insect has been devoted to a consideration of its habits as a corn pest in the South, and only recently have its injuries to the wheat crop of Virginia and Maryland become so serious as to attract general attention. Prof. Riley published a general article upon the species in his report as Entomologist of the Department of Agriculture for 1884, and within the last year Prof. E. W. Doran, late Entomologist of the Maryland Agricultural Experiment Station, published a good account of the insect upon pages 437-441 of Bulletin 16 of the station.

The farmers are particularly concerned with the damage done by this insect to the wheat crop. Its habits need not be dilated upon, as they are doubtless familiar to all concerned in its treatment. It may be stated briefly, however, that the parent insect is a small gray moth or "candle fly," resembling a clothes moth. This moth lays its eggs only upon hard grain. The eggs hatch into small, whitish, maggot-like caterpillars, which eat out the interior of the individual grains, and when full grown spin delicate silk cocoons from which the moths eventually issue. The insect passes the winter only in barns and storehouses. It will breed uninterruptedly, generation after generation, in stored wheat. After the time of harvest the moth flies out from the granaries to the wheatfields and will lay its eggs upon grains of wheat in the shocks. The larvæ are not destroyed in the threshing and are carried back to the granaries again. From these facts it is plain that if the granaries of a neighborhood are kept free from the insect the shocks will not become infested in the fields. If an individual farmer, however, takes the trouble to disinfect his granary, his wheat shocks will be infested by moths flying from the barns of his neighbors, provided he does not thresh very soon after harvest. In such cases early threshing is very important. I realize the difficulty which frequently occurs in getting the thrasher at the proper time, and where the wheat must be left in the field the individual farmer must disinfect his granary every year soon after the wheat

is put in. There is an alternative, however, and it is a most desirable alternative, and upon its practice depends the diminution of the insect in numbers, if not its practical extermination, in any given neighborhood. Let all of the wheat growers of a neighborhood by concerted action disinfect their granaries thoroughly for one or two years. It is plain that if this be done all future damage will depend upon the importation of the insect in cereal products from some other locality.

How is this disinfecting to be done? A malodorous, inflammable liquid, known as bisulphide of carbon, is the agent, and its application is very simple. The simplicity of the operation depends upon the fact that the liquid is extremely volatile. When exposed to the air it evaporates with great rapidity, and its vapor is sure death to insect life. Prof. Doran, in the bulletin of the Maryland Agricultural Experiment Station above referred to, following earlier writers, recommends the use of this substance in tight bins, and when so used it is undoubtedly more effective, but there is no absolute necessity for a very tight receptacle, and it may be used to advantage in a reasonably close room of any dimensions. The method is to pour the liquid into shallow vessels, like small tin pans,

one soon becomes accustomed. Against this insect as a corn pest the practice is being generally adopted in some sections of the South, largely upon the recommendations of the Division of Entomology, Department of Agriculture, of growing only such varieties of corn as have a close-fitting husk, thus preventing the insects from laying their eggs upon the corn in the field, and of storing the corn in cribs without removing the husk. The damage done by the weevil is thus reduced to a minimum, although the storage space required is greatly increased.

It may be well to add that the bisulphide of carbon treatment above outlined is efficacious not only against the so-called fly weevil, or Angoumois grain moth, as it is sometimes called, but against all other insects which affect stored grain, and of these we have some five or six species in this country, all beetles in the parent stage.

NEW ELEVATOR AT HINDSBORO, ILL.

We herewith present an illustration of the Peterson Patent Grain Elevator, recently erected for Eversole Bros. at Hindsboro, Ill., on the line of the Vandalia Railway.

The cut, which is taken from a photograph, merely shows the exterior of the building and the interior of the driveway, in which a wagon is shown on the dumping sills and in the position of dumping its contents into the receiving box. The elevating apparatus is not shown, but consists of a series of winding drums, so arranged that the receiving box, into which a load of grain is dumped, may be quickly raised and dumped into a car on the side track or into storage bins. Various kinds of grain may be received in succession and either loaded for immediate shipment or stored for future disposition, and with absolute certainty that no mixing has occurred.

The building is 24x40 and has a storage capacity



NEW ELEVATOR OF EVERSOLE BROS. AT HINDSBORO, ILL.

and set them on top of the grain. The vapor is heavier than air, and will sink down through the mass of grain and destroy all insects. The amount to be used varies with the space to be treated. When used in bins, a pound and a half to a ton of grain is recommended by Prof. Riley. When used in a reasonably close room or in a nearly empty bin, one pound of the bisulphide should be evaporated for every one thousand feet of cubic space, or in a space 10 by 10 by 10 feet, $\frac{1}{2}$ of a pound in each of three shallow vessels for a space of these dimensions. For a space 10 by 10 by 20 feet, use 2 pounds in 6 vessels; for a room 10 by 20 by 20 feet, use 4 pounds in 12 vessels, and so on. Make the room as tight as is convenient. A good time to treat the grain is on Saturday afternoon. Place your pans of bisulphide in position, close the room up tightly before dark, and leave it closed until Monday morning. Then air the room thoroughly and stir the grain to some extent. The vitality of the grain will not be injured in the least, nor will its edible qualities be harmed.

One point should be always borne in mind in using bisulphide of carbon, and that is its extreme inflammability; its vapor when confined is even explosive. No light nor fire should be brought into its vicinity. With care in this respect, however, it is easy and safe to handle, and it is not dangerous for a human being to inhale a reasonable amount of the vapor, in spite of its extremely offensive odor—to which, by the way,

ity of 5,000 bushels. It is well built, substantial and an attractive feature of the town. The farmers are greatly pleased with it, and are hauling their grain for miles around rather than use the old style high driveway. The plan embodied in this elevator makes the ascent scarcely perceptible. Each team elevates its own load by means of a rope appliance, and so speedily that but three or four minutes are consumed in the entire operation.

In the May issue of the AMERICAN ELEVATOR AND GRAIN TRADE a detailed illustration and description of this style of dump was presented to our readers. The manufacturers, Oakes & Irwin of Decatur, Ill., inform us they have received inquiries from interested people all over the United States, and from Europe as well.

When you make a change in your place of business or name of firm let us know it.

While at the World's Fair last week we took especial notice of the miniature Capitol building made of Iowa grains, and for which Chas. S. Young & Co. solicited a carload of grain from each township in the state. It is a very nice exhibit, but as samples of Iowa grain it is of no use whatever. The solicitor here also claimed that each farmer's sample of grain would be labeled with his name and address and the location of his farm, but very close examination failed to show any names on the exhibit.—*Wall Lake Blade*.

A MODEL STEAM PLANT.

The vertical cross compound condensing engines, shown in the half-tone, are now in use at the Hudson Electric Light and Power Company's station, Hoboken, N. J. There are two engines placed in the same engine house, which are nominally 500-horse power each, but which develop 800-horse power, using steam at 125 pounds pressure per square inch in the boilers, and controlling with the governor by liberating the steam gear of the high pressure cylinder. The high pressure cylinders are 20 inches in diameter, the low pressure cylinders 36 inches in diameter, and the stroke common to each 36 inches long. The engines run 103 revolutions per minute.

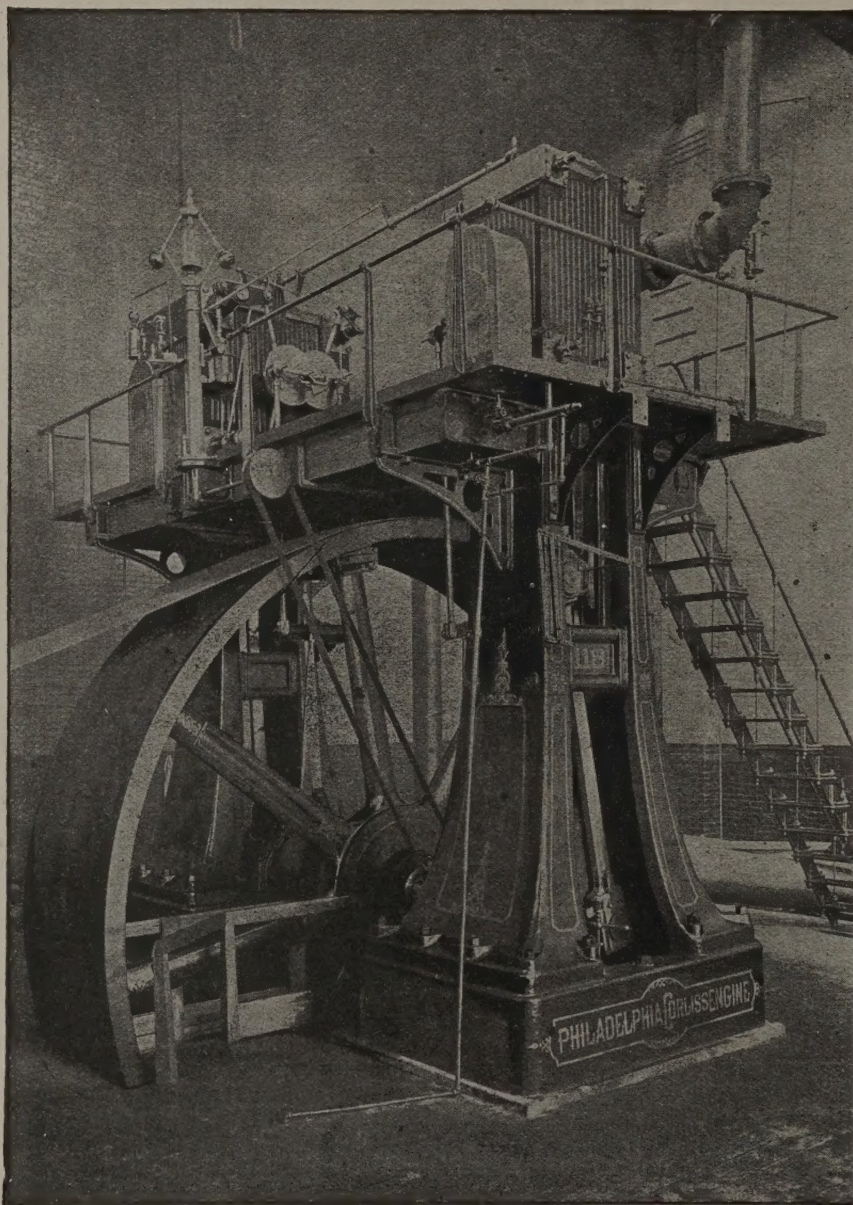
A careful examination of the illustrations gives the full data of these machines. The shaft journals are 12 inches in diameter and 24 inches long, being 2 inches larger than is usual to put on a cylinder of this size. The center of the shaft where the wheel is keyed on is 14 inches in diameter. The flywheels are 17½ feet in diameter and 54-inch face, weighing, when finished, 47,000 pounds each. The peripheral velocity of these wheels is 5,660 feet per minute, driving onto a countershaft from which the different electric machines are driven. These engines are controlled by a counter-weighted governor of the "Porter" type, and give exceedingly steady movement. They are used for electric railway and arc and incandescent lighting.

Though the revolutions are high for a liberating gear engine of this size, they are found to operate very satisfactorily, and above all economically. To obtain this the largest area of valves are used.

The throttle valve is 7 inches in diameter, which is an unusually large size for a 20-inch cylinder. The ports and openings through the valves are likewise very ample, so that the card shows very little resistance to the steam passing through the cylinders. Besides this, between the two cylinders and situated directly below the platform, indeed forming a part of it, is a reheater, rectangular in form, through which extend, from end to end, a series of solid drawn brass tubes, which are heated by live steam from the boilers and drain back to them. This steam serves to superheat the steam after doing its work in the high pressure cylinder, and thereby lessens the usual large condensation of the pressure cylinder. It is the belief of the manufacturers of these engines, the Philadelphia Engineering Works, that where this is carried out in practice to a liberal or preferably to an extreme extent, steam jacketing of engines of reasonably high rotative velocity is no benefit whatever, especially with engines where the cooling surface of the cylinders themselves, which are alternately acted upon by incoming and outgoing steam, are reduced to a minimum as they are in the usual type of Corliss Valve Gear. When piston valves or other forms of balance valves are used, and when the steam is admitted and discharged through the same openings and over the same surface, the condensing area of the cylinder promoting initial condensation in the cylinder (which is entirely apart from the radiation to the atmosphere, and which will go on independent of that radiation, and almost indifferent to it) should be added to the internal surface areas of the cylinder while the piston displacement remains constant. Happily the genius of Geo. H. Corliss removed essential errors and reduced the surface as compared with the piston dis-

placement to a minimum, while at the same time constructing valves which are subjected to the least wear, and which of themselves may wear while keeping tight. Apart from this valuable introduction of the liberating gear controlled by the governor, this one feature of his engines is of the greatest advantage.

These engines are the forerunner of what is expected this firm will offer to the trade in the very near future; that is high speed, liberating gear, genuine engines. The smaller class of these engines will have a rotative velocity of 150 revolutions, and the largest ones 125 revolutions per minute. The small engines will drive, when belted direct, the smaller class of generators (or other machinery of factories and the like), and the larger class of engines are intended to have the generators placed upon the main shaft of the



STEAM PLANT OF THE HUDSON ELECTRIC LIGHT & POWER CO., HOBOKEN, N. J.

engine. These engines will be constructed of the horizontal-vertical type, having one end of the shaft entirely free. They are a very compact engine and occupy little room.

The advantage claimed by the electrical engineers for a direct driven generator is essentially that due to large machines as against a multitude of small ones. They are essentially more efficient, having less parts than a number of small machines; they require less oil, less attention; they occupy less room, and for the same power delivered cost less money for installment, when the cost of ground and the buildings is considered.

The members of the Chicago Grain Inspection Department gave a picnic at Tuxedo Park near Chicago, recently, which was attended by 1,500 persons. Chief Inspector Bunker secured a pig which was offered as a prize for the fastest runner.

SPRINKLER EQUIPMENT OF A GRAIN ELEVATOR.

The test of the automatic fire extinguishing apparatus in the new grain elevator built by the Simpson & Robinson Company of Minneapolis, for the Boston & Maine Railroad corporation at Charlestown, Mass., was held recently and proved most interesting for many reasons. The main building is as large, with one exception, as any elevator in the country, the dimensions being as follows: Length 262½ feet, width 98 feet, width of monitor 42 feet, total height 151 feet, to main roof 86 feet, bin capacity 1,560,000 bushels, total 2,000,000 bushels. Cost \$5,000,000.

The apparatus used is the Grinnell inside, and cornice sprinklers (dry pipe system) and the Morse monitor nozzles in conjunction with standpipes. The entire equipment was installed according to the specifications of the Boston Board of Fire Underwriters, and has been approved and accepted as complete by that body. The time taken from the opening of a valve at the farthest point of the inside system to the appearance of the water was exactly four minutes and twenty seconds.

The test of the new Grinnell Cornice Sprinkler was very satisfactory, the action being quick, and the sides of the main building thoroughly wet down. These cornice heads protect the eaves. The ordinary equipment, on the "conveyors" which lead from the elevator to the docks worked finely also.

In the yard north of the elevator, which is built nearly east and west, is a large standpipe surmounted with a 2½-inch monitor nozzle. This nozzle has a range of about 250 feet and is designed to protect the north side of the main elevator and adjoining sheds. The nozzle throws a splendid stream, is easily operated by one man, and would prove very efficacious in case of fire. Other nozzles are placed at the south side and northeast corner of the main roof.

The water supply is salt, being taken from the docks, and is sent through the different systems by means of two Knowles Duplex Automatic Steam Pumps, having a capacity respectively of 1,000 and 1,500 gallons. The plant is also equipped with the American thermostat fire alarm.

The installation of the apparatus was under the supervision of Inspector W. H. Wedger, the well-known expert of the Boston Board of Fire Underwriters, assisted by Fred L. Whiting, a well-known authority on such matters, which fact should be a sufficient guaranty

that the work has been properly done. Among those present were noted General Manager J. W. Sanborn and Traffic Superintendent W. F. Berry of the Boston & Maine Railroad system, W. T. Montgomery, Ernest Windsor and A. E. Bliss of the Providence Steam and Gas Pipe Company.

A new species of grasshopper is doing much damage to corn about Nashville, Ill. The pests eat the blades off, rendering it unfit even for fodder.

"A farmer in Maryland received more money for the straw from his wheat field than he did for the grain, although the latter was a fair yield. He raised 630 bushels of wheat on 33 acres, about 19 bushels to an acre. His straw weighed two tons per acre and was worth \$8 per ton, or \$16 per acre. The value of the grain was \$403; of the straw \$528." The man who started that story must have been stuffed with straw.

FURNISHING CARS.

It is the duty of a common carrier to carry for all who demand his services, and it is equally his duty to carry expeditiously. But in the abstract, it is not the carrier's duty to furnish cars for loading by the shipper, or delivery cars for unloading to the consignee. Theoretically, at least, it is the duty of the shipper to deliver to the carrier at his established warehouse, the merchandise for transportation, securely boxed or packed, so that it can be handled without damage to itself or to other merchandise with which it may be shipped. Under the theory of the law of transportation the duty of the carrier in respect of a given shipment is performed when the goods are deposited in the warehouse of the carrier and the consignee notified that they are there. It is then his duty to remove them, or, failing to do so, he leaves them there at his own risk, unless they are lost or damaged through the gross negligence of the carrier or his servants. This, in short, is the legal duty of shipper, carrier and consignee.

But the usages of modern business and the enactment of regulating statutes, state and federal, have somewhat changed the practical application of the rule. The needs of modern business have built up a system of car trade rules which were unknown to the old law. In all lines of trade there are many shippers who load direct to the cars furnished by the company, and the delivery is made by car direct to the consignee. In the first place, it is no part of the legal duty of the carrier to furnish cars for loading or to deliver them for unloading, unless specially required to do so by statute. Under the interstate commerce law, if cars are delivered or furnished to one shipper, they must be delivered or furnished to his competitors in like numbers and upon like terms, if demanded. The fact that the company has no cars to furnish is no excuse from this liability, for it is the business of the carrier to equip himself for his business. But the recourse of the shipper is not for failure to furnish cars. It is the wisest course for the shipper who finds his business interfered with by a car famine to take his shipment to the established depot of the carrier, and tender it for shipment. It then becomes the duty of the carrier to transport the shipment with all reasonable dispatch, and for failure or neglect the carrier is liable for whatever damage the shipper may sustain. If the carrier is in a position, either under a special statute, or by reason of his course of dealing, where he can be charged with liability to furnish cars, a demand for the cars is a sufficient tender of the shipment.

In any case, however, the tender of shipment, in order to charge the carrier with liability for failure to carry, must be accompanied by a tender of the charge for carrying, unless that tender be waived. The refusal of the shipment on any ground except because the price for carrying is not prepaid, is a waiver of the tender of freight rate, as a rule. This is because it is not necessary to make a tender which would avail nothing, and if a shipment is refused because the carrier cannot carry it, the offer of the compensation would avail nothing, because it, too, would have to be refused.

The only things which will excuse a common carrier from carrying for whoever demands his services, and from providing himself with the equipment necessary, are the act of God or the public enemy, or sudden and unexpected emergency. The sudden destruction of a considerable quantity of equipment by flood or storm, or by war, would excuse the carrier until he had a reasonable opportunity to repair the damage, and the influx upon him of an amount of freight beyond what he has any reason to expect would excuse him till the surplus was taken care of, or, if a permanent increase resulted, then until the added equipment necessary could be procured.

In other words, it is the business of the carrier to provide himself with sufficient equipment to carry the business of the country through which he operates. He becomes a common carrier of his own volition, and when he assumes the duties of that position he also assumes its responsibilities. Though the demand at times may far exceed that of others, as when some general product of the country is to be moved in bulk, it is, nevertheless, the duty of the carrier to be prepared for that, though it may require equipment that is necessarily idle at other times.—*Northwestern Miller.*

AN ARTISTIC EXHIBIT IT MACHINERY HALL.

The visitor to the World's Fair is attracted as much by the Machinery Hall as by any other of the wonderful structures in the grounds. In this hall are the extensive power plants which furnish power and light for the entire grounds, so that this special feature, as well as the large number of foreign and domestic exhibits makes it possible for one to

plete array of samples of their manufacture of chain belting.

As they manufacture one of the largest lines of chain belting it is of special interest to examine the different styles of chains here displayed. At the back of their space they have a collection of sections of iron and wooden troughs which show exactly the necessary construction of runways for conveyors, giving a person an accurate idea of the best forms of troughs for the different classes of material to be handled. To better show the adaptability of their manufacture to the handling of all commodities there in bulk or package, they have two large portfolios full of blue prints of machinery manufactured within the past few years. In charge of this exhibit are competent men who are thoroughly able to explain and give any information in regard to the best form of elevators and conveyors for any special purpose. Illustrated catalogue can be had by addressing the company either at the factory at Columbus, O., or at New York City.

A complete 200 feet Jeffrey Conveyor can be seen in practical use in connection with the paper makers' exhibit in the same building, while a complete line of elevators, conveyors and screens is shown by them in their exhibit in the Mines and Mining Building.

GRAIN DEALERS INDIGNANT.

Indianapolis shippers are becoming more and more indignant as regards the treatment the roads are giving them in the matter of east-bound freight, says the *Indianapolis Journal*. For a considerable time St. Louis shippers of grain, flour and articles of that class have been given by all rail lines the same rate that the Indianapolis shipper are given, 23 cents per hundred pounds, and by part rail and part water route a 20-cent-per-one-hundred-pound rate—a rate which the Indianapolis shipper does not enjoy, and one which is 3 cents per 100 pounds lower than any rate from Indianapolis to the sea board. In speaking of this, one of the Indianapolis shippers said: "The inter-state Commerce act was passed to prevent discrimination, but putting it into effect has given opportunity to discriminate against ten shippers where there was one discriminated against before its passage. Take Indianapolis and Terre Haute; both have suffered greatly through its operation, while the smaller shipping points have not been benefited. Indianapolis shippers are now getting in earnest as regards the discrimination in favor of St. Louis, and unless the Big Four and the Pennsylvania officials give the matter

prompt attention they will lose a large per cent. of their traffic from here to the seaboard. One shipper is now negotiating for the shipment of 1,000 carloads of grain, with the privilege of shipping 5,000 cars, by a line which will land grain at the seaboard within a few hours of the time made by the so-called direct lines, and at rates that will move the business.

The local elevator men who have grain cleaning and clipping machinery in connection with their elevator plants have been making strenuous protests against paying the increase demanded by the local association, but that body can see so little profit in elevator risks that it will not reduce its charges.—*Insurance Post, Chicago.*

Two dollars will pay for one year's subscription to the *Hay Trade Journal* and the *AMERICAN ELEVATOR AND GRAIN TRADE*. The *Hay Trade Journal* is published at Canajoharie, N. Y., every Saturday, and contains reliable telegraphic reports of many markets. It also contains other information of value to those connected with the hay trade. Sample copies of these journals may be secured free of charge upon application.



EXHIBIT OF THE JEFFREY MFG. CO. IN MACHINERY HALL.

spend a great deal of time with profit in this building alone.

On one of the main isles in the center of the building will be found the exhibit of the Jeffrey Mfg. Co. of Columbus, O., in section O-P, 31. Here they found it impossible to secure over about 400 square feet of floor space, consequently it was a difficult matter to erect, on such a limited space, a line of devices that would give any full idea of the adaptability of chain belting for elevating and conveying purposes. They have, however, been able to get together one of the most attractive exhibits in this building. The attention of the passer-by is immediately called to this display as they have it so arranged as to show at a glance the workings of their machine in constant operation.

The cut which we show will give an idea of the arrangement of this exhibit, but the exhibit itself is one that a person can examine carefully and get some benefit from. As you enter the space you first find a complete coal handling elevator with centrally hung buckets. Beyond and on each side of the space, you will find barrel elevators, tile elevators, grain elevators and elevators for handling ores and broken stone, while all around their space is a com-

RICE RECEIPTS AT NEW ORLEANS.

The New Orleans *Times-Democrat* publishes a table giving the receipts of rice at New Orleans for the crop year 1892-93, showing a total of 1,972,946 sacks rough rice and 6,490 barrels clean, or reduced to clean in proportion of three barrels rough to one barrel clean, 664,139 barrels clean.

The increase of rice receipts at New Orleans in the past sixteen years is shown as follows: 1877-78, 233,707 sacks rough rice, 16,682 barrels clean rice; 1878-79, 279,611 sacks rough rice, 21,045 barrels clean rice; 1879-80, 182,999 sacks rough rice, 11,152 barrels clean rice; 1880-81, 445,397 sacks of rough rice, 29,812 barrels clean rice; 1881-82, 435,692 sacks rough rice, 39,390 barrels clean rice; 1882-83, 392,750 sacks rough rice, 37,736 barrels clean rice; 1883-84, 459,559 sacks rough rice, 41,055 barrels clean rice; 1884-85, 333,693 sacks rough rice, 32,333 barrels clean rice; 1885-86, 889,212 sacks rough rice, 57,983 barrels clean rice; 1886-87, 838,476 sacks rough rice, 48,566 barrels clean rice; 1887-88, 626,811 sacks rough rice, 23,263 barrels clean rice; 1888-89, 737,075 sacks rough rice, 29,227 barrels clean rice; 1889-90, 777,742 sacks rough rice, 7,441 barrels clean rice; 1890-91, 892,374 sacks rough rice, 4,115 barrels clean rice; 1891-92, 1,052,331 sacks rough rice, 5,640 barrels clean rice; 1892-93, 1,972,946 sacks rough rice, 6,400 barrels clean rice.

DESTINATION OF OUR WHEAT EXPORTS.

The total exports of wheat to all countries amounted to 12,444,729 bushels during the month of July, against 7,928,452 bushels exported during July, 1892; during the seven months ending with July 63,353,185 bushels were exported, compared with 67,234,240 bushels exported during the same months of 1892. Wheat aggregating 6,222,177 bushels was exported to the United Kingdom in July, against 4,299,624 bushels exported during July, 1892; during the seven months ending with July 34,404,744 bushels were exported, compared with 32,399,194 bushels exported during the corresponding months of 1892. To Germany 315,717 bushels of wheat were exported, against 871,047 bushels in July, 1892; during the seven months ending with July 1,570,219 bushels were exported, compared with 4,720,045 bushels exported during the corresponding months of 1892. France received from us 836,605 bushels of wheat in July, against 245,197 bushels in July, 1892; during the seven months ending with July the exports amounted to 5,759,696 bushels, compared with 11,163,184 bushels exported during the corresponding months of 1892. To other countries in Europe we exported 4,138,561 bushels in July, against 1,957,111 bushels in July, 1892; during the seven months ending with July the exports amounted to 17,477,359 bushels, against 16,369,509 bushels exported in the corresponding months of 1892.

To the British North American possessions our wheat exports amounted to 925,829 bushels in July, against 531,690 bushels in July, 1892; during the seven months ending with July 3,777,225 bushels were exported, compared with 2,476,986 bushels exported during the corresponding months of 1892.

To the Central American States and British Honduras during the seven months ending with July the exports amounted to 25,663 bushels, compared with 36,320 bushels exported during the corresponding months of 1892. The West Indies and Bermuda received 9,575 bushels during the seven months ending with July, against 4,324 bushels received during the corresponding months of 1892. Fourteen bushels of wheat were exported to Brazil in July, against 15,912 bushels exported in July, 1892; during the seven months ending with July 16,026 bushels were exported, compared with 51,547 bushels exported during the corresponding months of 1892.

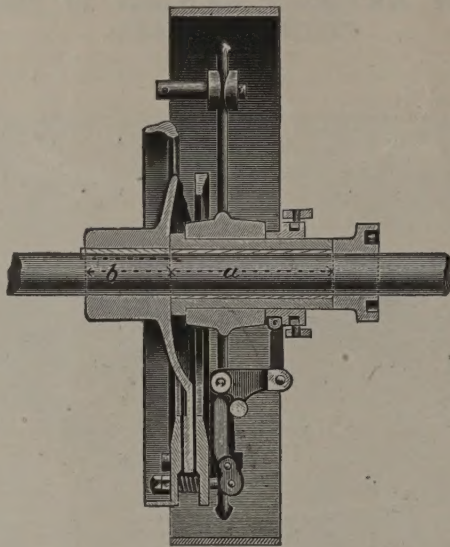
Other countries in South America received 3,678 bushels during the seven months ending with July, against 4,397 bushels exported during the seven months ending with July, 1892.

Asia and Oceania received 7,023 bushels during the seven months ending with July, against 8,326 bushels received during the seven months ending with July, 1892. Africa received during the seven months end-

ing with July 295,514 bushels, compared with 408 bushels received in the corresponding months of 1892. To other countries we shipped 6,163 bushels during the seven months ending with July, and none during the corresponding period of 1892.

THE IMPERIAL FRICTION CLUTCH PULLEY.

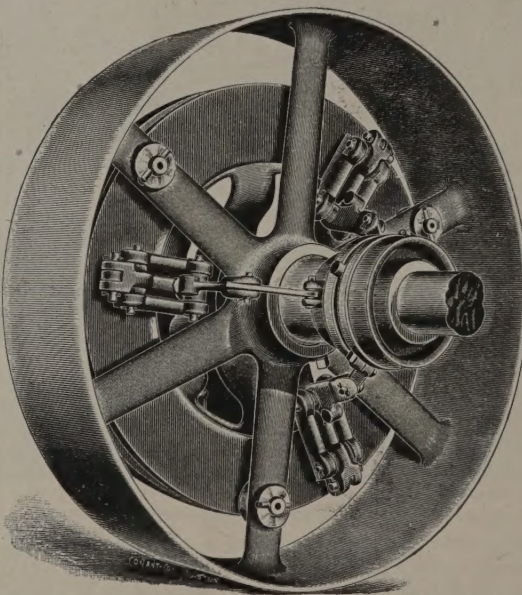
The utility of friction clutch pulleys for power transmission has been fully demonstrated by long and continuous service, and to the thoughtful investi-



THE IMPERIAL FRICTION CLUTCH PULLEY.

gator no argument is needed to prove that the advantages they offer make them the most economical and profitable in the long run. By equipping shafting with clutch pulleys, one secures immediate control over each machine, and can stop and start it instantly. The belt stands still when machine is not running, saving wear and tear of belting, also saving power.

Shifters—a fruitful source of damage and wear to belts—are dispensed with, and belts too wide to be



THE IMPERIAL FRICTION CLUTCH PULLEY.

successfully shifted can be used with best results upon friction clutch pulleys. In some quarters the mistaken idea prevails that the initial expense of equipping a plant with clutch pulleys is much greater than where tight and loose pulleys with the consequent necessary driving pulleys with double width of face are used. The fact is, that taking into account the cost of loose pulleys and of extra wide driving pulleys (which are not required with clutch pulleys), the initial cost of an equipment using clutch pulleys is but slightly, if any, in advance of the other arrangement. Even if this were not the case it is obvious that the advantages afforded by clutch pulleys would soon compensate for the additional cost, and consequently the matter of first cost should not deter anyone from

equipping their plants throughout with friction clutches.

Our attention has lately been called to an improved pulley of this kind, called the "Imperial," and manufactured by the firm of J. W. Penfield & Son of Willoughby, O. We present herewith cuts showing the pulley as well as the principles upon which it is constructed. The novel manner of construction, it is claimed, secures increased efficiency, durability, ease of adjustment and quickness of repairs, and at the same time overcomes the only valid objection heretofore urged against clutch pulleys in general.

As will be seen by examination of the sectional view the Imperial Clutch Pulley is provided with two circular friction rings, between which is a friction disc. The friction disc is keyed to the shaft and turns with it, while the balance of the mechanism and the pulley is loose on the shaft. The clutch levers, of which there are three sets on each pulley, clamp the friction disc between the friction rings, thereby setting the whole pulley in motion. The clutch mechanism is very positive and quick acting, giving immediate control over the pulley.

The friction surfaces of the friction rings are protected by strips of insulated fiber, affording an extra precaution against wear. These strips can be replaced by others at any time, and this portion of the pulley kept as good as new. The bushings are made in halves and are renewable. They are babbitted and can be removed and rebabbitted at any time without taking the pulley from the shaft. As the bushing and friction surfaces are the part subject to greatest wear, the manner of construction of the Imperial Pulley, permitting the renewing of these parts (as well as of all others) readily, enables the user to keep his pulleys in perfect repair and running order and adds to the profit of the investment.

NEW CHARGES FOR INSPECTING AND WEIGHING IN MINNESOTA.

The Minnesota Railroad and Warehouse Commissioners have established new rates for inspecting and weighing grain. The rate for inspecting on arrival is 20 cents a carload; for inspecting out of store it is 20 cents from public houses, and 30 cents from private; inspecting to vessels 40 cents per 1,000 bushels from public houses, and 60 cents from private. The weighing charge is 20 cents a car for weighing into store, and 20 cents per car for weighing out from public houses, and 30 cents for weighing out from private houses. To weigh to vessels 40 cents per 1,000 bushels from public warehouses, and 60 cents per 1,000 bushels from private warehouses.

The inspection of flaxseed on arrival is 65 cents per carload; to inspect from store 65 cents per car from public houses to cars, and \$1 from private houses, 65 cents per 1,000 bushels to vessels from public houses, \$1 from private houses. The charge for weighing flaxseed is the same as for weighing grain. The charges for weighing at railroad yard scales are \$1 per car. The new charges go into effect from and after Sept. 15, 1893.

STORAGE RATES AT MINNEAPOLIS.

The elevator companies of Minneapolis have agreed to charge the following storage rates for the ensuing year: Receiving (including 20 days' storage), 1½ cents per bushel; 15 days' storage, or fraction, ½ cent; cleaning ½ cent; transferring wheat, corn or oats from one car to another ½ cent; transferring all other kinds of grain 1 cent. In case the grain being transferred is not loaded out in 10 days the regular receiving and storage rates apply. Winter storage begins November 15 and ends May 15. Winter rates are to be 1½ cents per bushel for the first 20 days' storage, and ½ cent for each succeeding 15 days or fraction, until 4 cents per bushel has accrued (including 1½ cents handling charges), after which no charge is made until May 15. On grain earning winter storage a rate of ½ cent is charged for each 15 days, or fraction thereof.

A good second crop of clover and timothy has been cut in Stone county, Mo.

DEATH OF NORTH STORMS.

North Storms, who was so well known and highly respected by many members of the grain trade of Indiana, Illinois and Kentucky, is no more. He died at his home in Evansville, Ind., on the afternoon of August 30, after a short illness. The preceding week he went to Carmi, White County, Ill., his former home, where he still retained large business interests, and while there complained of having acute pains in the head. He returned to Evansville and went to his office, where he wrote several letters the same evening. He then went home, and before retiring took several grains of quinine. On Wednesday morning he was ill, but went to the office as usual. His condition became worse and he was finally compelled to send for a conveyance to take him home. He took to his bed and medical skill was summoned. After an examination it was discovered that the patient was suffering from a dangerous affliction—oedema—of the lungs and heart trouble. The nature of the disease was the failure of the heart to receive the blood from the lungs, which caused an inflammation, attended with great pain. He lingered in a conscious state to the last, although he was very weak. He bore his sufferings with fortitude and frequently conversed with members of the household.

North Storms was a most remarkable man in many respects, and Evansville has lost an able and respected citizen. He knew no end to work and sacrificed himself to the advancement of his business interests. Even to the last his indomitable will was shown in that he did not give up until absolutely compelled. No man ever applied himself more closely to his business than did Mr. Storms.

The deceased was born at Carmi, White County, Ill., on the 8th day of October, 1842, being the son of Mr. John Storms, who, for a quarter of a century, held the position of county surveyor of White county. He was surrounded by moderate though comfortable circumstances and was given the advantage of a common school education. He conceived the idea of learning the drug business, and accordingly, at an early age, secured employment as clerk with a pharmacist at Carmi. He soon learned to fill prescriptions, and finally was given the management of the store. About the year 1873 he embarked in the drug business for himself and had fair success.

He possessed shrewd business instincts, and as he grew older he conceived the desire to emerge into a business which would afford a broader field. He therefore disposed of his drug store and entered the business of buying and selling grain, having in connection a general store.

Meanwhile, his father died and left heavy debts. He had a small amount of property, which was under mortgage. North and his only brother, Hail, concluded to prevent the selling of the homestead, and went to work at hauling wood to pay off the debt, which they finally succeeded in doing. This was previous to the time North embarked in the drug business. During another interval Mr. Storms was employed for a time in the office of the county clerk of White county.

After starting in the grain business he married Miss Anna L. Habberton of Mt. Carmel, Ill., and they located at Carmi, Mr. Storms' headquarters.

His first investment of any consequence was a shipment of wheat valued at about \$1,200, consigned to parties at New Orleans. It was loaded on a steamboat, and just below Memphis the boat sunk, causing a total loss to the cargo. Unfortunately, Mr. Storms had had it insured in such a way that after it had been transferred at Memphis the insurance was void and he suffered absolute loss in his investment. This greatly embarrassed him, but he maintained great courage and was not to be daunted by this misfortune. He strived to gain another foothold, but made apparently slow progress.

The banking firm of Hay & Weeb, having mean-

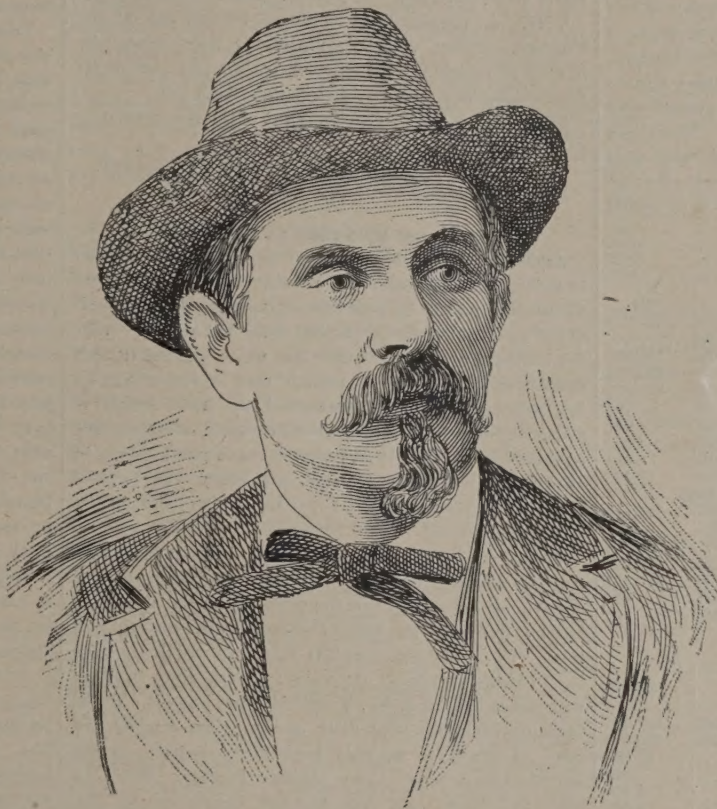
while observed his shrewd business qualities, determined to give him assistance. They backed him in business transactions and enabled him to make extensive purchases. Fortune smiled upon him and he finally attained a reputation as one of the most successful and shrewdest merchants.

Six years ago Mr. Storms moved to Evansville and associated himself with Mr. W. P. Clarke, and the firm of North Storms & Co. was established. His popularity was increased by this venture and his name became more extensively known in the business world.

He was also connected with the firm of Storms Bros. & Smith of Carmi; was president of the Dyer, Veatch & Co., wholesale peanut house of Evansville, and also president of the Franklin Insurance Company. He was strictly honorable in all his transactions. At the time of death he was a member of the Presbyterian church.

The deceased was a member of one secret organization—the Royal Arcanum.

A devoted wife and five children—Catherine,



NORTH STORMS.

John, North, Lee and Frank—are left to mourn his demise.

A HAY TRICK OR TWO.

A case has just occurred, in which a lot of new Ontario hay was baled and shipped to England via New York; but the party here who bought it for old hay was informed that it was just possible it might be new hay. A party in New York was at once wired, with instructions to inspect the lot, when it was found beyond question that it was the new product. Consequently, the Ontario shipper's draft was at once dishonored, and the reason promptly furnished. It seems that some of the farmers in this province have a trick of allowing their hay to remain in the field longer than usual, until it becomes a little red in color, whenever the market warrants them baling it earlier than it should be. It will be a thousand pities if our farmers attempt to play this trick during the coming season, for if they do, it will ruin the record which Canada has already made for its No. 2 shipping hay.—*Trade Bulletin, Montreal.*

A. R. Beaty of Carrington, N. D., has a field of rye that was cut early in the season and put up for hay that has grown up again and is all headed out and will be ready to cut in a few days. The last crop is better than the first.

AMERICAN HAY FOR EXPORT.

In view of the large amount of American hay that is and will be wanted in Europe this season the following information is of value to hay dealers: England requires timothy and clover mixed, and will sometimes take prairie No. 1 and No. 2. France requires timothy No. 1 and No. 2. Germany requires timothy and timothy mixed with clover. Hay for export must be perfectly cured and dry before baling, as any moisture will impair the quality; it must also be of good quality, bright, clean and sound, and hay that is put up for export in bales is known as "perpetual" bales, and should be pressed to weigh as heavy as possible. Steamship companies refuse to accept bales with less than three ties on each bale, as the handling from cars to lighter and steamship requires it, as the loss from breakage of bales with two ties is more than the expense of the third tie.

TRANSFERRING GRAIN AT MONTREAL.

Complaints have been made to us by some of our grain men to the effect that the cost of labor for elevating grain by the Montreal Elevating Company after 6 o'clock in the evening falls upon shippers or the steamship companies, notwithstanding that the elevating company gets paid for the elevating all the same, at the full rate of one-half cent per bushel, says the *Montreal Trade Bulletin*. The opinion seems to prevail that as long as the elevating company charges its full rate it should pay for its own labor, whether by day or by night; and it certainly does seem a most anomalous state of affairs that shippers and ocean vessels should be charged one-half cent per bushel for putting their grain on board ship, and also to foot the cost of the labor of the company's employees. The Montreal Elevating Company may well pay its 12 per cent. interim dividends, when it can count upon its customers defraying a portion of the wages of its own hands. Of course the company may turn round and say, "It is for the convenience of shippers that the elevating men are required to work after 6 o'clock P. M., and consequently they should pay for work done after regular hours." But the company gets its full rate for doing the work after regular hours as well as other times, and why shippers or receiving vessels should be called upon to pay the cost of labor for elevating is not very clear. It is nothing more or less than paying twice for the work of putting their grain on board vessel, first

in the full charge for elevating, weighing and delivery, and second, in paying the wages of the company's employees. But as we have before endeavored to instill into the minds of both local and Western shippers, until the port of Montreal has a healthy competition in the matter of elevating grain, they will never have their interests properly looked after and cared for. The Montreal Elevating Company, like all other soulless monopolies, looks first to the earning of its big dividends and interim dividends, and in the prosecution of that work the interests of its involuntary patrons are slighted. Were it not for the knowledge that some of our ocean vessels would favor the present elevating monopoly, a new company would soon start and do the work at half the rate now charged, and make good returns.

The Chicago Grain Inspection Department inspected a less number of cars of grain during August than during any August since 1888, when 21,785 cars were inspected. In 1889 38,002 cars were inspected; 26,383 in 1890, 42,233 in 1891, 36,788 in 1892, and 23,149 in August, 1893.

Clover seed amounting to 277,542 pounds, valued at \$33,314, was exported in July, 1892. During the seven month ending with July 2,677,126 pounds, valued at \$343,311, was exported, compared with 5,910,285 pounds, valued at \$525,434, for the corresponding months of 1892.

COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

PESSIMISTIC.

Editor American Elevator and Grain Trade:—Business is very dull in this vicinity. I have built one 20,000-bushel elevator for farmers at Preston, Fillmore Co., Minn., and I think that will be all this season.

Respectfully yours,
Lansing, Ia. J. F. WIER.

OUR BOSTON LETTER.

Editor American Elevator and Grain Trade:—Business has been good the past month for both brokers and jobbers. New oats has been the attractive feature, the good quality and low price of which have stimulated business. One house claims to have placed over 300,000 bushels throughout the country. There has been a good demand for spot stuff. Considerable oats have been brought from interior Western points, official inspection not cutting much of a figure with this excellent crop.

RECEIPTS FOR AUGUST.

Articles.	1893.	1892.
Cotton Seed Meal, bushels.....	29,772	.....
Corn, bushels.....	448,972	530,896
Wheat, bushels.....	656,199	463,710
Oats, bushels.....	603,315	555,177
Rye, bushels.....	2,170	700
Mill Feed, tons.....	3,325	4,027
Oatmeal, sacks.....	1,271	689
Oatmeal, barrels.....	1,910	2,015
Cornmeal, barrels.....	9,648	13,216
Barley, bushels.....	7,855	2,200
Malt, bushels.....	118,625	144,414
Hops, bales.....	673	192
Peas, bushels.....	.....	1,015
Flour, barrels.....	95,928	110,665
Flour, sacks.....	248,250	179,912
Hay, cars.....	677	835
Straw, cars.....	273	42

EXPORTS FOR AUGUST.

Articles.	1893.	1892.
Wheat, bushels.....	728,326	647,577
Corn, bushels.....	492,920	290,005
Oats, bushels.....	.....	22,309
Peas, bushels.....	.....	925
Buckwheat, bushels.....	.....	2,410
Cornmeal, barrels.....	3,713	4,501
Oatmeal, barrels.....	255	630
Oatmeal, sacks.....	1,355	615
Flour, sacks.....	266,368	182,495
Flour, barrels.....	29,250	34,878
Mill Feed, sacks.....	3,502	.....
Hay, bales.....	89,241	.....

Geo. H. Tripp, formerly a grain dealer at Central Village, Conn., is wanted for embezzlement of about \$12,000.

Yours, etc., BUNKER HILL.

FUTURE OF ENGLISH WHEAT GROWING.

Editor American Elevator and Grain Trade:—I wish to secure some information that will enable me to take a look at the future of English wheat growing. As this largely, quite entirely, depends on the ability of foreign producers to maintain the supply at the present abnormal and ruinous level of prices, I am desirous of getting at the bottom of the matter and to know as nearly as possible what is the present cost of production to American growers, and what is the point below which they cannot go with profit. To this end I have prepared a few questions which I would consider a great favor if your readers would answer in your columns.

The question of wheat growing in this country is assuming rapidly a most serious and grave aspect for all concerned. Any information bearing on this subject will be highly esteemed, and if any readers can, I would be pleased to have them reply to the following questions:

I.—(a) Is the land usually owned by the occupiers or rented? (b) If owned, what is about the present

selling value per English statute acre or an equivalent, taking land of a quality fairly representative of your district, county, or government? [It would be sufficient to assume that farms situate either nearer or more distant from railway facilities, markets, or central points of accumulation, would bear a corresponding value in proportion to such situation.] (c) On what terms are real estate loans obtainable? (d) If the land is rented or hired: What is usual or fair average rental, also taking fair representative quality per English acre or an equivalent? [Similar conditions as to situation applying as in foregoing.]

II.—What wage is usually paid for farm labor, and hours of work?

III.—I shall value any information you would give as to: (a) Cost of manure, if used. (b) Cost of working and preparing the land. (c) Cost of seeding. (d) Cost of harvesting and threshing.

IV.—What is fair average crop?

V.—Can any other crop be raised in the same year? Of what value would such crop be?

VI.—Of what value is the straw?

VII.—What is total cost of transport, road, rail, or water from the farm to nearest ocean shipping port?

VIII.—At present level of wheat values, say 30/ per English quarter of 496 pounds, for good wheat delivered in London, does wheat-growing pay, and is its production increasing or decreasing with you?

IX.—At this level of price what is the net return to your grower?

Yours faithfully, W. R. MALLETT.
Exeter, England.

IRREGULAR BUYERS IN NEBRASKA.

Editor American Elevator and Grain Trade:—I want to say a few words about the establishment of buyers at country points by commission merchants and dealers of central markets. About this time every year for the past five a new buyer has been placed in this market by different city dealers, and in order to get a fair share of the grain marketed we have found it necessary to pay 1 to 1½ cents more than is customary to secure it. None of the dealers have put a buyer in our market a second season, but every year a fool turns up to take the place of the one we roasted the year before.

Whenever we see a farmer coming who has in years gone by sold doctored or dirty grain we have some of our friends help us to run the price up on the irregular buyer. We start the price low and let the others run it up. If a friend gets it at less than it is worth we take it, if his bid is above its value, he examines it again withdraws, and lets Mr. Track Shipper have it. These transient shippers who visit our market during the rush of grain to market have few expenses, so can afford to pay more than regular buyers. With an office in his hat and free storage furnished by the railroad he can easily afford to pay from ½ to 1 cent more per bushel than we can. When we learn that he wants a load to fill his car for shipment we make him pay a good price for it, and when the markets go down and he has several cars partly loaded we always let him have enough to fill cars at a reasonable price, so that he would ship with a loss staring him in the face. Then he would be blue, down hearted and discouraged for a few days and we would get all the grain at a fair price. We are not hogs, but having invested several thousand dollars in a well constructed elevator, which is kept open the year around for the accommodation of grain growers, we feel that we are entitled to a good living and profit.

Each merchant who has sent a representative into this market has been satisfied with one year. However, we have not made much during these years, and we would deem it a great favor if some of the regular dealers would give us some suggestions that will assist us in defending our business from the attacks of these leaches.

If we had an association of regular dealers in this part of Nebraska I would be heartily in favor of boycotting every dealer or commission merchant that sends buyers into the country markets to buy from the farmer. It would not matter whether they had ever entered our market or not, if we learned of their buying direct from farmers or even soliciting shipments from farmers at any station where a regular dealer was trying to do business we would, as at

present, have no dealings with them. Regular dealers who have an eye on their own interests can not do otherwise, for they know not how soon the dealer in the terminal market, flushed by the success of his minions at their country stations, will place a buyer in their markets. We will lend no aid to irregular buyers nor have anything to do with them. They can have none of our business if we can help it. If any regular dealer can give us any suggestions we will be very thankful.

Very truly, B. & M. EL.

A FAVORABLE TIME FOR PUSHING OUR GRAIN MACHINES INTO RUSSIAN MARKETS.

Editor American Elevator and Grain Trade:—Russia and Germany are quarreling. The commercial warfare between them makes the situation so acute for both sides that it is evident a crisis is approaching. Since July 12 (June 30), when a special commercial treaty between Russia and France came into effect and reduced import duties were enforced which conferred upon the friendly country the privileges and advantages, Germany, Austria-Hungary and Portugal have been excluded of those privileges.

The new double tariff system was declared to go into effect within a certain time, and it was intimated that it was directed chiefly against Germany. A 30 or 20 per cent. increased duty was to be levied on the most important products of German culture and industry, whereas on such goods of forcing emergency as were either to be bought of or to be received through Germany an increased duty of 15 per cent. was to be levied. No sooner did it become known that the new Russian double tariff was to go into effect on August 1 (July 20) than a new measure was taken by Germany against Russia; the import duty on almost all the important Russian products was increased by 50 per cent. Russian grain, unless imported from Finland, was to pay the following duty per 100 kilo: Wheat 750 pfennigs, rye 750 pfennigs, oats 600 pfennigs, barley 335 pfennigs, corn 300 pfennigs, malt 600 pfennigs, etc. In consequence of which the Russian secretary of finance was authorized to issue a new circular providing for a still larger increase of duty on German goods. The already higher duty rate as in force from August 1 was to be immediately increased by 50 per cent. of the amount so as to make in either case three halves of the rate defined by the double tariff and thus form an equivalent of the new German duty.

As things are standing there is hardly any concession to be expected on either side, and on the other hand hardly any step in the same direction is possible. Those who in March and April had imagined and expected that agricultural machinery would be admitted free of duty are now inclined to think that the tariff warfare is but a prologue of an international drama when Germany and Russia are to exchange rifle shots. Meanwhile there is no doubt whatever that enormous quantities of German goods are being excluded from the Russian market and must be necessarily substituted for by either forcing other or by home-made products.

Austria, being anxious to avail herself of the favorable opportunity to develop her export trade with Russia, makes her utmost efforts to have a special commercial treaty concluded with her mighty Eastern neighbor, and is nearing the desired agreement. She is likely to supply our market with a portion of the required goods, but cannot cover and fill out quite all the requirements, especially in the line of agricultural machines, because of her lack of facilities.

The Russian farmer and landowner is accustomed to use German or English plows, and German hand power threshing machines. He uses Austrian (styrian) scythes, English steam threshing sets, American horse rakes, broadcast seed sowers and drills, disc harrows, gang and sulky plows, grain cleaning and grading machinery. None of these goods are successfully made at home, but all must be brought over from abroad, for the reason that we are very poor in the production of steel and iron, deficient in well seasoned lumber, and desperately short of factories. Hundreds of carloads of German plows were annually imported from Germany, but none from Austria, who seemed to satisfy herself with German plows instead of starting a prominent manufacture in this line. Numbers

of broadcast seed sowers were also readily to be had in Germany, and never came from either Austria or England. No one could imagine that such a machine could be made in Russia. I know of instances where a Russian inventor could not get his simple grain grading machine made by a Russian factory and was reduced to the necessity of having it ordered in Sweden.

Quite a number of grain elevators have been built on almost all the principal railroads during the two years past. All of them need grain cleaning machinery and outfits, and we necessarily must find a source to meet all these requirements. It is, of course, not Austria that will be able to supply our elevators with the necessary machinery and outfits. Shall we apply to England? But as far as known the Howes Eureka and other best grain handling machinery are of American origin, and the first Russian elevator at Eletz was supplied not with German or English, but with American machines, viz., with an Excelsior Separator and Grader, and an oat clipper of the E. H. Pease Manufacturing Company of Racine, Wis., U. S. A.

England enjoys the same privileges and advantages of a reduced tariff as France and the U. S. A., and will certainly profit by the chance for an extensive, profitable business. But why should we prefer unknown French or English machines to those of American make with which we are familiar? Why should not our American friends enter a keen competition on the wide field of the Russian machinery market if they can, and must succeed in securing an enormous amount of profitable business? Why should they be afraid of our country? Those skeptics should consult the above named party of Racine or the Austin Manufacturing Company of Chicago, who have had the opportunity to transact business with Russian people.

I should think the present moment is the most favorable to start a large export business, and should an American association of manufacturers and dealers decide to undertake a large commission business in our places they should be backed by an international commission bank and would certainly be benefited.

Yours truly, ALFRED F. BENDER, ENG.
St. Petersburg, Russia.

SHORTAGES IN SHIPPING HAY.

The losses sustained by shipping hay to the English market through shortages in weight are almost incredible, and it is evident that allowances either in price or weight will have to be made to protect shippers if the export trade is to be made a permanent success, says the *Montreal Trade Bulletin*. Account sales have recently been received from English firms, showing shortages of 5½ to 6 per cent. from the weight when put on board here. We have seen for ourselves how these shortages occur. After a car of hay is unloaded here it will be found that the bottom of the car is thickly covered with short hay, caused by the abrasion of the bales in loading and unloading. A further waste occurs in carting the hay from the cars to the ship, then in putting it on board, and unloading it on the other side; so that there is one continual shrinkage going on from the time it leaves the farmer's hands until it is weighed for sale in England.

Shipments of hay have been made from this port, which would have shown fair profits, had it not been for the shortages in weight. On one lot of hay shipped from this port to England amounting to 600 tons, there was a loss of \$450, and on other good sized shipments the losses through shrinkages in weight in transit have ranged from \$400 to \$1,200.

This is simply frightful, and if the export hay trade is to be made a success, shippers here will have to figure on a reduction of 75 cents to \$1 per ton in the price of the hay here.

J. S. Dodder, farmer of Argentine, Mich., speculated in wheat. Creditors began suit, attaching his property. He tried to commit suicide and failed. Then he braced up and settled the suits by payment of \$8,000 or over. He lost \$12,000 in wheat deals. The moral is that the farmer should confine himself to raising the wheat and let the other fellows get scorched by gambling with it.

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.

No. 4. Bin Would Be Safe—Drive Elevator from Top.—I would say to Query No. 1 in the August number of the *AMERICAN ELEVATOR AND GRAIN TRADE* that a bin 9x9, 20 feet deep, built of cribbing 2x4 hemlock, would be safe if the hemlock is surfaced so it will lie flat and even. Five-eighths rods and washers are cheap and can be let in the walls while building. Two sets rods will answer, or one set of 1-inch rods in middle. In answer to Query No. 3 I would say that all elevators should be driven from top when practicable. Less power is required than to drive from bottom.—McFADDEN & Co., Havana, Ill.

No. 5. Track Scales in Illinois and Kansas.—I believe Illinois grain shippers as well as Kansas shippers are entitled to track scales and clean bills of lading if 100 cars of grain have been shipped from their station the preceding year. I have not much faith in the accuracy of track scales, but if any shipper has had any experience with this arrangement I would like very much to read his opinion in the next number of *AMERICAN ELEVATOR AND GRAIN TRADE*. I feel the need of clean bills of lading, but doubt the expediency of demanding of the railroad company that it put in track scales. I. L. L. SHIPPER.

No. 6. Cribbing for Small House.—If "B. B." will select extra good lumber his bin will sustain any grain he can put in it, but as an extra precaution I would advise him to put small iron rods about every three feet up to within ten feet of the top. I have had experience with several bins about the size he mentions, and I would have been much easier had they been rodded. In one case I had rods put in to make sure my house would not fall to pieces during my busy season. I have known of several cases where elevator men lost the cream of a year's business on account of a fall in grain, which took the elevator with it. Put in rods and be on the safe side.—McC.

No. 7. Acceptance without Inspection.—I have a case involving a question regarding which I would like to have the opinions of brother dealers. The acceptance of ear corn or other goods that, owing to their nature, cannot be properly inspected in the car, although the car may be consigned to John Jones, Philadelphia, Pa., via Blank (any central point), for inspection, is made a point at law. I think I read a notice in the *AMERICAN ELEVATOR AND GRAIN TRADE* some two or three years ago of a decision by some court that carried with it a general application, deciding that inspection and acceptance in such cases can only be enforced at destination. If anyone will kindly inform me where and by what court this decision was made they will greatly oblige.—GRAIN SHIPPER.

No. 8. Mixing for the Chicago and Toledo Markets.—I would be pleased to learn what has been the experience of shippers of winter wheat in shipping to the Chicago and Toledo markets. In my judgment about 20 per cent. of the wheat we will receive from this year's crop will be equal to No. 2 Chicago inspection, and not over 45 per cent. will be equal to No. 3. I have not shipped winter wheat to these markets before, so have no experience to guide me. Will it be profitable for me to carefully clean and scour all my wheat not poorer than No. 3 and mix in proportions of about one-sixth No. 2 and five-sixths No. 3 for shipment to either market? Would it be more profitable to ship the two grades unmixed or to mix wheat poorer than No. 3 with either? Any suggestions on the matter from those who have had experience will be thankfully perused by N. U. SHIPPER.

Prof. Shaw of the Ontario Experiment Station, in his recent bulletin on rape culture, states that in all the states bordering on the Dominion of Canada, and in several states further south, rape can be grown successfully.

FLAX GROWING IN IRELAND.

The Association for the Improvement of the Culture of Flax in Ireland has just issued its annual report. It shows that last year there was a considerable deterioration in the area under this crop. The county of Tyrone with 1,219, which shows a small increase on 1891, comes first; Antrim and Down follow, both exhibiting decreases—18.6 per cent. and 8.4 per cent. respectively, the other counties standing in the same order as in 1891, for although Donegal and Fermanagh have gone up, the increase is not sufficient to change their relative positions as flax producers. That several of the counties would increase their sowing, no matter how slightly, in 1892, was quite unexpected, but it is just possible that the relatively higher prices realized for this year's production may have reached that point which will check the falling off in the area which has been going on during the last few years. Flax growing does not stand in a more favorable light, in proportion to the acreage under other crops, but rather the reverse. The following table shows the area and yield of flax for the eleven years stated:

	Area Under Flax.	Yield Per Acre, Stones.	Tons.
1882.....	113,484	29.33	20,804
1883.....	95,943	30.79	18,464
1884.....	89,225	25.94	14,465
1885.....	108,147	30.93	20,907
1886.....	127,865	28.97	23,151
1887.....	130,202	20.10	26,357
1888.....	113,586	28.17	20,001
1889.....	113,652	26.48	18,812
1890.....	96,896	33.10	20,045
1891.....	74,672	26.64	12,433
1892.....	70,642	22.27	9,833
Average of ten years..	102,083	27.34	17,457

The above record contains little of importance beyond the fact that all the figures but two are much below the average. The report points out that were the spinning mills dependent upon Irish flax just now the situation would be serious.

RECEIPTS AT BUFFALO.

The following table shows the receipts at Buffalo, N. Y., during the past fourteen years from the opening of navigation to August 31:

	Flour, Barrels.	All Grain, Bushels.	Flour and Grain, Bu.
1893.....	5,474,125	74,576,682	101,947,309
1892.....	5,311,171	73,304,871	99,860,726
1891.....	3,027,089	57,466,843	72,602,288
1890.....	2,838,785	65,022,700	69,216,625
1889.....	2,279,641	47,252,311	58,650,516
1888.....	2,646,601	42,527,106	55,760,111
1887.....	2,233,928	49,517,448	60,687,088
1886.....	2,455,685	42,591,407	54,889,892
1885.....	1,182,458	28,465,880	34,378,170
1884.....	1,295,800	26,385,543	32,864,543
1883.....	1,281,291	35,711,848	42,018,303
1882.....	966,888	27,609,385	32,493,825
1881.....	625,043	37,726,623	40,251,838
1880.....	713,998	66,386,773	69,955,763

IMPORT MORE HAY THAN WE EXPORT.

Hay aggregating 5,196 tons, valued at \$52,400, was imported in July, against 6,242 tons, valued at \$67,932, imported in July, 1892. During the seven months ending with July 71,881 tons, valued at \$665,876, were imported, compared with 50,171 tons, valued at \$490,269, for the corresponding months of 1892.

During the month of July 5,359 tons of domestic hay, valued at \$91,416, were exported, against 2,418 tons, valued at \$40,956, in July, 1892. During the seven months ending with July 21,969 tons, valued at \$343,835, were exported, compared with 20,847 tons, valued at \$344,036 for the corresponding months of 1892.

Of imported hay we re-exported 102 tons, valued at \$943, during the seven months ending with July, against 151 tons, valued at \$1,387, for the corresponding months of 1892.

Wheat was first exported from the United States about 1750.

The rice crop in Louisiana is estimated to be somewhat smaller than last year, due to reduction in area.

CROP : CONDITIONS.

KANSAS.—The Kansas Agriculture Department reports: Further yields of wheat reported indicate a still lower yield than reported a month ago. The total crop will not be more than 19,000,000 bushels. The oat crop of the state is 26,000,000 bushels.

NORTH DAKOTA, FARGO, CASS CO., Aug. 27.—Farmers in this county report the wheat as shelling badly in cutting, and the waste from this source will be no small item. In most cases the yield is disappointing and a ten-bushel average is a high estimate. **ARGUS.**

WISCONSIN. MANITOWOC, MANITOWOC CO., Sept. 4.—Winter wheat is of good quality. The yield is about 25 bushels per acre. Spring wheat is of fair quality and better than it was last year. The quality of rye is extra good, and the yield above the average. **EDWARD SHAFELAND.**

OHIO, KENT, PORTAGE CO., Sept. 6.—Wheat yield will run 18 to 30 bushels to the acre. The quality is fine. We have received no wheat from this crop weighing less than 60 pounds to the bushel, and much of it weighs 62 pounds. Oats are a good yield. The quality is good and very heavy. Corn is nothing extra. The weather has been too dry. **DAVID H. LEIGHLEY.**

NEBRASKA. MADISON, MADISON CO., Sept. 11.—Crops in this vicinity are good this year. Oats vary in yield, running from 20 to 45 bushels per acre, and testing from 24 to 36 pounds per bushel. Corn will average 50 bushels per acre and wheat about 18 bushels. Our corn is entirely out of the way of frost. In this respect we are more fortunate than some localities. **W. E. KINSELLA.**

CLOVER SEED.—C. A. King & Co., Toledo, O., have received replies from 1,300 dealers in clover seed in Ohio, Indiana, Illinois and Michigan. These four states produce most of the clover seed crop and surplus. Mammoth is a trifle below an average and medium will be less than two-thirds of an average. Illinois has the poorest crop of both kinds. Michigan has suffered from dry weather and grasshoppers and promises almost as poorly. Indiana has a poor crop of medium, but an average one of mammoth. Ohio has the best crop. The quality of the crop is better than usual. The reports are almost unanimous that there is no old seed left in the interior.

CORN IN KANSAS.—Secretary Mohler of the Kansas Agriculture Department in his monthly crop report says: From reports of correspondents of this board, numbering about 600 and representing every county in the state, the following facts have been received. The increase in corn area by reason of failure of wheat over that reported by the assessors is given as follows: In Eastern belt, 8 per cent.; in Central belt, 20 per cent.; and in Western belt, 23 per cent. This is equivalent to over 13 per cent. on the entire area reported by assessors, or 726,321 acres, making the total area planted to corn this year 46,277,067 acres: The condition of corn is reported as follows: Eastern belt, 82 per cent., a loss of ten points since last report; Central belt, 50 per cent., a loss of eight points in the same time; in the Western belt but little corn is grown—outside of the northern tier of counties there is practically none. There is a heavy decline in the condition of the corn crop in some proportions of the Eastern belt on account of the dry weather and chinch bugs during the first two or three weeks of August. Some counties report no rain of any consequence during August. Chinch bugs are reported doing serious damage wherever the rain fall was light, and especially in cornfields adjacent to wheat and on wheat ground planted to corn.

GOVERNMENT CROP REPORT.—The September report from the Department of Agriculture at Washington shows a decline in the condition of corn to 76.7 from 87 in the month of August and 93.2 in July, being a decline of a little over 10 points from the August and over 16 points from the July report. The change is marked in nearly all of the surplus corn states. The present condition is 75 in Kentucky, 64 in Ohio, 65 in Michigan, 57 in Indiana, 64 in Illinois, 96 in Iowa, 92 in Missouri, 73 in Kansas and 71 in Nebraska. The comparison with the September reports of the past ten years, only three were lower, 70, in 1890, 72.3 in 1887, and 76.6 in 1886. In the same month in 1892 the condition was 79.6, or nearly three points higher than the present month. There has been general decline in the condition throughout the country, which has been caused by the widely prevailing drought. The condition of wheat, considering both winter and spring, when harvested, was 74, against 85.3 in 1892. The general average is the lowest since 1885, when it was 72. The reported conditions from the correspondents for the principal wheat growing states are as follows: Ohio, 98; Michigan, 80; Indiana, 88; Illinois, 60; Wisconsin, 80; Minnesota, 95; Iowa, 85; Missouri, 64; Kansas, 42; Nebraska, 55; South Dakota, 66; North Dakota, 67; California, 89; Oregon, 93. In the East: New York, 76; Pennsylvania, 93; Maryland, 98; Virginia, 96. In the New England, Eastern and most of the Southern states, the crop was harvested in good condition and the yield averaged well. The same can be said of Ohio.

In Indiana the quality is good, but crop light, while in Illinois, Maryland, Kansas and Nebraska the yield is small and of an inferior quality, much of it grading at No. 3 and under and in some places is reported to be worthless. In the Dakotas the yield is light, while the quality is generally good. In Iowa and Wisconsin the winter variety yielded well and was of good quality, while the spring variety yield was poor and of an inferior quality. In Minnesota the yield has been poor and not up to expectations, the quality generally good, with some complaint of shriveled grain. In California and Oregon the quality of the grain is good, except on low lands, where it was greatly damaged. There has been a further decline in the condition of oats during the past month, the general average standing at 74.9, against 78.1 on the 1st of August.

RECEIPTS AND SHIPMENTS AT DETROIT.

The receipts and shipments of grain and hay at Detroit, Mich., during the 4 weeks ending September 2, as compared with the same period of the preceding year, were, according to Geo. M. Lane, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	1,199,174	1,714,047	936,817	1,037,193
Corn, bushels.....	84,113	76,083	22,712	11,472
Oats, bushels.....	229,012	200,321	28,170	35,700
Barley, bushels.....		937		
Rye, bushels.....	16,111	63,419	18,423	49,139
Flour, barrels.....	10,952	16,397	10,802	16,407

RECEIPTS AND SHIPMENTS AT KANSAS CITY.

The receipts and shipments of grain and hay at Kansas City, Mo., during the 4 weeks ending September 2, as compared with the same period of the preceding year, were, according to W. D. Charde, secretary of the Commercial Exchange, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels ..	1,516,600	5,071,800		
Corn, bushels....	1,008,600	885,000		
Oats, bushels....	182,400	170,400		
Rye, bushels....	5,400	121,200		
Flaxseed, bushels	24,600	76,800		
Hay, tons.....	5,580	3,860		
Bran.....	5,400	21,600		

RECEIPTS AND SHIPMENTS AT ST. LOUIS.

The receipts and shipments of grain and hay at St. Louis, Mo., during the 4 weeks ending September 2, as compared with the same period of the preceding year, were, according to Geo. H. Morgan, secretary of the Merchants' Exchange, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	2,145,847	5,755,296	683,177	2,302,965
Corn, bushels.....	1,541,220	849,695	1,454,398	348,960
Oats, bushels.....	726,670	1,160,850	173,408	164,848
Barley, bushels.....	869	2,100		466
Rye, bushels.....	17,500	110,884	5,083	61,957
Grass Seed, sacks.....	4,455	1,283		
Flaxseed, bushels.....	113,850	144,370	86,606	62,830
Hay, tons.....	16,075	12,603	1,940	1,354
Flour, barrels.....	77,580	111,288	175,580	235,246

RECEIPTS AND SHIPMENTS AT BUFFALO.

The receipts and shipments of grain and hay at Buffalo, N. Y., during the month of September, as compared with the same period of the preceding year, were, according to Wm. Thurstone, secretary of the Buffalo Merchants' Exchange, as follows:

Articles.	Receipts by Lake.		Shipments by Canal.	
	1893.	1892.	1893.	1892.
Wheat, bushels....	10,122,353	14,059,580	6,562,727	3,243,546
Corn, bushels....	4,521,508	3,166,730	943,179	275,496
Oats, bushels....	1,289,679	2,566,330	95,760	1,063,343
Barley, bushels....	100,200	Nil	10,400	19,133
Rye, bushels.....	7,090	134,400	25,392	
Grass seed, bags.....	8,372		Not repta	Not repta
Flaxseed, bushels.....	202,232		*8,952,616	*28,828,224
Broom corn, lbs.....	Not repta		Not repta	Not repta
Hay, tons.....	Not repta		Not repta	Not repta
Flour, barrels.....	1,405,603	1,175,450	615	14,205

*Quoted in pounds.

RECEIPTS AND SHIPMENTS AT MINNEAPOLIS.

The receipts and shipments of grain and hay at Minneapolis, Minn., during the 4 weeks ending September 2, as compared with the same period ending September 3 of the preceding year, were, according to G. D. Rogers, secretary of the Chamber of Commerce, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	1,962,370	2,925,420	775,550	1,763,520
Corn, bushels.....	117,250	61,350	28,650	8,670
Oats, bushels.....	216,760	222,460	66,700	103,950
Barley, bushels.....	24,890	24,940	15,720	17,080
Rye, bushels.....	7,100	19,490	13,620	26,960
Flaxseed, bushels.....	5,720	11,180	4,200	144,300
Hay, tons.....	2,413	2,281	30	40
Flour, barrels.....	5,226	11,657	763,953	764,986

RECEIPTS AND SHIPMENTS AT PEORIA.

The receipts and shipments of grain and hay at Peoria, Ill., during the 4 weeks ending September 2, as compared with the same period of the preceding year, were, according to R. C. Grier, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	105,000	375,500	66,600	326,700
Corn, bushels.....	499,400	362,750	131,300	127,600
Oats, bushels.....	1,735,800	1,195,000	1,759,600	1,031,800
Barley, bushels.....	4,900	10,200	13,300	700
Rye, bushels.....	1,200	11,350	1,800	3,000
Mill Feed, tons.....	2,295	180	2,450	732
Hay, tons.....	1,670	2,090	892	370
Flour, barrels.....	24,950	17,900	24,435	17,950
Spirits & Liquors, bbls.	430	10	11,525	19,652
Syrup & Glucose, bbls.	1,676	1,100	17,615	10,608

RECEIPTS AND SHIPMENTS AT TOLEDO.

The receipts and shipments of grain and hay at Toledo, O., during the 4 weeks ending September 2, as compared with the same period of the preceding year, were, according to Denison B. Smith, secretary of the Produce Exchange, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	1,929,500	6,752,900	1,661,700	5,822,300
Corn, bushels.....	406,000	175,900	369,900	90,200
Oats, bushels.....	103,200	58,100	64,100	13,300
Rye, bushels.....	58,000	122,300	3,150	9,800
Flour, barrels.....	7,869	5,638	76,345	111,860

RECEIPTS AND SHIPMENTS AT MILWAUKEE.

The receipts and shipments of grain and hay at Milwaukee, Wis., during the 4 weeks ending September 2 as compared with the same period of the preceding year, were, according to Wm. J. Langson, secretary of the Chamber of Commerce, as follows:

Articles.	Receipts.		Shipments.	
	1893.	1892.	1893.	1892.
Wheat, bushels.....	714,160	1,871,234	131,846	264,309
Corn, bushels.....	67,000	104,890	5,200	30,340
Oats, bushels.....	364,000	433,000	111,650	243,800
Barley, bushels.....	24,000	165,100	6,400	28,896
Rye, bushels.....	65,280	91,810	26,000	51,024
Grass seed, pounds.....	25,390	None	152,000	None
Flaxseed, bushels.....	8,700	3,300	None	2,700
Hay, tons.....	679	663	371	None
Flour, barrels.....	80,128	144,320	166,985	271,512

A car of hay was shipped to this city a few days ago, costing \$9 per ton at point of shipment, but when it reached here and was offered for sale, although over \$30 additional charges were incurred for freight, etc., it only fetched \$3 per ton, and the party to whom the hay was consigned to here has a reclamation of \$12 on the shipper to cover charges. This hay turned out to be an admixture of thistles and hay in bad condition, and the probabilities are that a lawsuit will have to settle the matter. How a country dealer or farmer could have the conscience to sell such stuff for \$9 per ton is inexplicable; but it shows how people will take undue advantages if there is the slightest chance of palming off an imposition.—*Trade Bulletin, Montreal.*

VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, September 9, 1893, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Albany.....	706,000	63,000	34,000	2,000	
Baltimore.....	295,000	68,000	9,000		20,000
Boston.....	1,425,000	420,000	271,000		34,000
do afloat.....					
*Chicago.....	18,498,000	2,216,000	860,000	151,000	2,000
do afloat.....					
Cincinnati.....	9,000	10,000	5,000	1,000	1,000
Detroit.....	932,000	3,000	23,000	7,000	33,000
do afloat.....					
Duluth.....	2,342,000			2,000	
do afloat.....					
Indianapolis.....	292,000	18,000	39,000	2,000	5,000
Kansas City.....	331,000	28,000	7,000	2,000	
Minneapolis.....	924,000			56,000	50,000
do afloat.....					
Montreal.....	5,895,000	20,000	18,000	1,000	24,000
New York.....	383,000	6,000	19,000	32,000	58,000
do afloat.....	13,559,000	129,000	456,000	55,000	1,000
Oswego.....	352,000	50,000	24,000	8,000	
Peoria.....	111,000	13,000	201,000	4,000	
Philadelphia.....	614,000	63,000	186,000		
St. Louis.....	4,251,000	100,000	41,000	2,000	
do afloat.....					
Toledo.....	1,475,000	61,000	88,000	30,000	
Toronto.....	90,000				42,000
On Canals.....	2,352,000	531,000	238,000	8,000	
On Lakes.....	1,84,000	1,696,000	1,291,000	10,000	
On Miss. River.....		21,000	4,000		
Grand total.....	56,140,000	5,657,000	4,072,000	358,000	350,000
Same date last year.....	38,716,000	9,722,000	5,414,000	583,000	325,000

*Estimated from the best data available in advance of official figures.

INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector George P. Bunker the grain received at Chicago during the month of July was graded as follows:

WINTER WHEAT.

Railroad.	White.	Hard.	Red.	No Grade.
	2 3 4	1 2 3	1 2 3 4	
C. B. & Q.....	2 1	21 50	6 104 39	5
C. R. I. & P.....	1	22 52	4 64 23	1
C. & A.....	3 1	20 55	2 315 119	9
Illinois Central.....	3 2	14 13	90 231 31	5
Freeport Div.....				1
Galena Div. N. W.....		11 13		1
Wis. Div. N. W.....	3 1		4 1	
Wabash.....	3	2 4	20 99 102	8
C. & E. I.....	2	1	83 99 19	2
C. M. & St. P.....	1 1	7 33	1 1	
Wis. Cent.....				
C. Gr. Western.....		65	4 3 81	1
A. T. & S. Fe.....	1	14 75	51 84 25	1
Through & Spec.....	1 2	4 81	117 116 5	10
Total each grade.....	16 12	125 440	377 1120 448	41
Total W. wheat.....				2,579

SPRING WHEAT.

Railroads.	Northern.	2	3	4	No Grade.	White.	Mixed.
						2 3 2 3	
C. B. & Q.....		5	22	5	1 1	7	
C. R. I. & P.....		1	4	17	1	3	
C. & A.....						2	
Illinois Central.....		2	7	2			
Freeport Div.....				37			
Galena Div. N. W.....		2	49		3	3	1
Wis. Div. N. W.....			3	1			1
Wabash.....							
C. & E. I.....				12			
C. M. & St. P.....			14				7
Wis. Cent.....							
C. Gr. Western.....		1	22		1	9	
A. T. & S. Fe.....		2	147				
Through & Special.....		72	47	25	3		3
Total each grade.....		85	315	99	9 1	124	12
Total sp. wheat.....							545

CORN.

Railroad.	Yellow.	White.	2	3	4	No Grade.
	2 3	2 3				
C. B. & Q.....	671 65	161 10	1,883 299	93	10	
C. R. I. & P.....	323 135	85 19	1,276 599	152	7	
C. & A.....	162 112	34 30	90 98	23	2	
Illinois Cent.....	498 42	51 32	238 115	116	4	
Freeport Div.....	97 40	13 10	228 86	55	1	
Gal. Div. N. W.....	288 147	18 4	471 391	225	2	
Wis. Div. N. W.....	2		3			
Wabash.....	107 134	24 27	41 57	63	4	
C. & E. I.....	21 6	8 4	19 15	11	2	
C. M. & St. P.....	76 34	13 8	520 460	86	1	
Wis. Central.....						
C. Gr. Western.....	58 9	2 9	255 68	16		
A. T. & S. Fe.....	82 30	52 22	81 53	24		
Th'gh & Spl.....	28 5	3	73 19	16	3	
Total each grd.....	2,413 762	399 184	5,175 2,263	882	36	
Total corn.....						12,114

OATS.

Railroad.	White.	White Clipped.	No G'de
	1 2 3	2 3	1 2
C. B. & Q.....	454 278	112 51	2
C. R. I. & P.....	252 197	76 50	1
C. & A.....	316 119	130 29	9
Illinois Central.....	709 241	652 54	5
Freeport Div.....	40 60	14 18	
Galena Div. N. W.....	100 381	42 58	1
Wis. Div. N. W.....	11 32	1	
Wabash.....	227 120	335 52	3
C. & E. I.....	294 28	370 15	1
C. M. & St. P.....	94 245	31 29	
Wisconsin Central.....			
C. G. Western.....	15 37	5 17	
A. T. & S. Fe.....	243 29	86 11	1
Through & Special.....	9 22	28 5	2
Total each grade.....	1 2,764 1,880	1,881 390	4 38
Total oats.....			6,968

RYE.

Railroad.	1	2	3	No Grade.
C. B. & Q.....		60	6	
C. R. I. & P.....		22	16	
C. & A.....		1	1	1
Illinois Central.....		1	3	
Freeport Div.....		20	3	
Galena Div. N. W.....		35	21	1
Wisconsin Div. N. W.....		4		
Wabash.....		1	1	
C. & E. I.....		1	3	
C. M. & St. P.....		27	4	1
Wisconsin Central.....				
C. G. Western.....			2	
A. T. & S. Fe.....			1	
Through & Special.....		27	10	
Total each grade.....		199	71	3
Total rye.....				273

BARLEY.

Railroad.	Bay Brewing.	Chevalier.	No Grade.	Total No. Cars by Each Road.
	2 3 2 3	4 5		
C. B. & Q.....		1	1	4,375
C. R. I. & P.....		4	1	3,513
C. & A.....				1,694
Illinois Central.....				3,161
Freeport Div.....		4	1	697
Galena Div. N. W.....		4	7	2,331
Wis. Div. N. W.....		129	5	204
Wabash.....				1,436
C. & E. I.....				1,000
C. M. & St. P.....		28	8 10	1,753
Wisconsin Central.....				
C. G. Western.....			3	682
A. T. & S. Fe.....			1	1,115
Through & Special.....				736
Total each grade.....		171	33 13	22,697
Total barley.....				218
Total all grain.....				22,697

FLAXSEED AT CHICAGO.

The monthly receipts and shipments of flaxseed at Chicago during the past twenty months, as reported by S. H. Stevens, flaxseed inspector of the Board of Trade, were as follows:

Months.	Receipts.	Shipments.
	1893. 1892.	1893. 1892.
January.....	396,550 782,650	323,261 296,355
February.....	187,550 556,050	232,555 200,884
March.....	367,950 592,900	333,257 232,395
April.....	232,650 547,800	660,506 702,589
May.....	190,300 309,650	401,359 743,930
June.....	86,900 563,750	448,742 577,002
July.....	140,800 612,700	250,091 806,375
August.....	414,700 729,300	341,606 1,009,113
September.....		761,750 974,668
October.....		1,452,000 1,150,685
November.....		1,395,350 1,365,880
December.....		743,050 228,060
Total.....	2,107,400 9,046,950	2,991,377 8,278,936

RECEIPTS AND SHIPMENTS AT CHICAGO.

The following table, compiled by George F. Stone, secretary of the Board of Trade, shows the receipts and shipments at Chicago during August, 1893 and 1892, of seeds, hay and broom corn:

Repts.	Timothy lbs.	Clover lbs.	Other grass seeds, lbs.	Flax-seed, bu.	Broom corn, lbs.	Hay, tons.
1893 ..	4,798,870	138,011	191,462	438,544	228,700	21,366
1892 ..	2,347,895	16,407	148,573	789,296	138,100	16,409
Shipments.....						
1893 ..	5,232,786	135,674	1,138,065	351,257	402,326	4,211
1892 ..	3,941,211	319,675	2,608,491	975,030	575,643	1,194

RANGE OF PRICES AT CHICAGO.

The daily range of prices for cash grain at Chicago since August 15 has been as follows:

	NO. 2 RED W. WHEAT.	NO. 2 SPG. WHEAT.	NO. 2 CORN.	NO. 2 OATS.	RYE.	BARLEY.	FLAXSEED.
August.	Low.	High.	Low.	High.	Low.	High.	Low.
15.....	62 1/2	64 1/2	51 1/2	52 1/2	29	29 1/2	47
16.....	61 1/2	63 1/2	50 1/2	51 1/2	29	29 1/2	46 1/2
17.....	61 1/2	63 1/2	50 1/2	51 1/2	29	29 1/2	46 1/2
18.....	60 1/2	61 1/2	50 1/2	51 1/2	28	28 1/2	46 1/2
19.....	61 1/2	63 1/2	50 1/2	51 1/2	27 1/2	28 1/2	46 1/2
20.....	62 1/2	64 1/2	51 1/2	52 1/2	27 1/2	28 1/2	46 1/2
21.....	61 1/2	63 1/2	50 1/2	51 1/2	27 1/2	28 1/2	46 1/2
22.....	61 1/2	63 1/2	50 1/2	51 1/2	27 1/2	28 1/2	46 1/2
23.....	61 1/2	63 1/2	50 1/2	51 1/2	27 1/2	28 1/2	46 1/2
24.....	60 1/2	61 1/2	50 1/2	51 1/2	27 1/2	28 1/2	46 1/2
25.....	60 1/2	61 1/2	50 1/2	51 1/2	26 1/2	27 1/2	45
26.....	61 1/2	63 1/2	50 1/2	51 1/2	26 1/2	27 1/2	44 1/2
27.....	61 1/2	63 1/2	50 1/2	51 1/2	27 1/2	28 1/2	44 1/2
28.....	61 1/2	63 1/2	50 1/2	51 1/2	27 1/2	28 1/2	44 1/2
29.....	61 1/2	63 1/2	50 1/2	51 1/2	27 1/2	28 1/2	44 1/2
30.....	61 1/2	63 1/2	50 1/2	51 1/2	27 1/2	28 1/2	44 1/2
31.....	62 1/2	64 1/2	51 1/2	52 1/2	27 1/2	28 1/2	44 1/2
1.....	63 1/2	65 1/2	52 1/2	53 1/2	27 1/2	28 1/2	44 1/2
2.....	63 1/2	65 1/2	52 1/2	53 1/2	27 1/2	28 1/2	44 1/2
3.....	63 1/2	65 1/2	52 1/2	53 1/2	27 1/2	28 1/2	44 1/2
4.....	63 1/2	65 1/2	52 1/2	53 1/2	27 1/2	28 1/2	44 1/2
5.....	63 1/2	65 1/2	52 1/2	53 1/2	27 1/2	28 1/2	44 1/2
6.....	65 1/2	67 1/2	54 1/2	55 1/2	27 1/2	28 1/2	44 1/2
7.....	64 1/2	66 1/2	53 1/2	54 1/2	27 1/2	28 1/2	44 1/2
8.....	65 1/2	67 1/2	54 1/2	55 1/2	27 1/2	28 1/2	44 1/2
9.....	65 1/2	67 1/2	54 1/2	55 1/2	27 1/2	28 1/2	44 1/2
10.....	65 1/2	67 1/2	54 1/2	55 1/2	27 1/2	28 1/2	44 1/2
11.....	67 1/2	69 1/2	56 1/2	57 1/2	27 1/2	28 1/2	44 1/2
12.....	67 1/2	69 1/2	56 1/2	57 1/2	27 1/2	28 1/2	44 1/2
13.....	67 1/2	69 1/2	56 1/2	57 1/2	27 1/2	28 1/2	44 1/2
14.....	67 1/2	69 1/2	56 1/2	57 1/2	27 1/2	28 1/2	44 1/2

* Labor Day.

For week ending Sept. 2 prime contract timothy sold at \$3.25@3.56 per cental; prime contract clover at \$8.75@9.57; Hungarian at \$1.25@1.46; German millet at \$1.00@1.20; buckwheat at \$1.10@1.60 per 1



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A. J. MITCHELL, - - - Business Manager.
HARLEY B. MITCHELL, - - - Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., SEPTEMBER 15, 1893.

WHEN visiting the World's Fair city do not fail to call at the office of the AMERICAN ELEVATOR AND GRAIN TRADE, Room 5, 184 Dearborn street, and get free of charge a souvenir guide to the World's Columbian Exposition and Chicago.

THE largest cargo of corn that ever left Chicago was sent out the other day from the Armour elevator. The Selwyn Eddy carried it and it figured up 141,500 bushels. The largest previous cargo of corn in a single vessel was 126,000 bushels.

It is reported that Addison Cammack has gone into wheat as a bull to the extent of 10,000,000 bushels. Cammack is a bear on railroad securities and consequently is not inconsistent in being a short crop bull, as high priced grain generally means little carrying trade for the roads.

THE insurance companies and the Chicago elevator men have not exactly patched up a peace, but both have made concessions. The insurance companies have decided not to make any radical changes in their tariff on elevators, the only changes in their schedule relating to so-called "twin" elevators.

THE business agent of the State Farmers' Alliance of Washington has a plan to save farmers from loss through being obliged to sell their wheat at low prices. He proposes to store the bulk of the crop and mortgage it for about 25 cents a bushel, thus enabling the farmers to hold their wheat for better prices.

SOME selfish shippers feel very secure from the onerous demurrage charge because they have never been called upon to pay it. The railroad companies have not yet reached them. When they do said shippers will raise a wail that will bring tears to the eyes of reformers who have tried in vain to secure their assistance in obtaining the adoption of a reciprocal demurrage

charge. As soon as the present demurrage charge is paid without kicking the railroad companies will increase it to \$2 and then \$3 per day.

DOCKAGE tables will be needed in the Northwest this crop year more than for years before. The best one for country grain buyers is to be found in the back of Davis' Grain Tables which are advertised in this number. The Davis tables for finding the value of any number of pounds at 25 cents to \$1.25 per bushel are the latest and best arranged tables published. Their cost is a trifle as compared with their value.

STEALING GRAIN FROM FREIGHT CARS.

During the past month complaints of stealing grain from cars at Peoria, Indianapolis and Buffalo have reached us. At each place people living near the freight yards depend upon the cars for feed for their live stock. The carriers are not compelled to make good the loss to the shipper, so leave the cars unguarded. At Minneapolis the losses from this source became unbearable and the dealers kept kicking until at last steps have been taken to prevent this petty pilfering.

On September 11 new regulations were put into force at Minneapolis, and hereafter no one will be permitted to break seals or enter cars in the freight yards of that city except the authorized agents of the railroad companies, grain inspectors or the authorized samplers and sealers of the new sealing department of the Chamber of Commerce. Cars will not be left unsealed, and any one caught breaking seals will be punished to the full extent of the law. This protection should be given to grain in cars at every market and junction point, but no steps will be taken to guard shippers' interests until each kicks vigorously and persistently against the losses suffered. Northwestern dealers have won at one point, and others can win if they will.

RECEIPTS FOR GRAIN DEPOSITED.

On August 22 Judge Williams of the United States Court at St. Paul made a decision in the complicated affairs of the Northern Pacific Elevator Company that will interest farmers and grain men. Application was made by Receiver Forbes for an order allowing him to distribute to farmers the wheat which they had delivered to the company, taking the company's receipt therefor. Warehouse receipts against this wheat had been issued and were held by Eastern banks as collateral for money loaned. The creditors resisted the application of the receiver, claiming preference as innocent holders of receipts issued in due form. The judge, however, granted the application of the receiver, allowing him to distribute to the farmers about 250,000 bushels of wheat on the presentation of their receipts. He held that as to this wheat the elevator company was a bailee and legally bound to return the wheat upon the surrender of the receipts issued; while the warehouse receipts delivered to the banks as security for loans were practically a chattel mortgage on property not owned by the company. The judge placed the company in the position of having committed a fraud if it issued the receipts to the banks without having the property, or of having been guilty of misappropriation if it had the wheat at the time of issue and subsequently disposed of the same. We may note that Judge Ames at Shelbyville, Ill., decided a similar case in regard to wheat left on deposit in the "Star Mills" of that place, that failed recently. He held that the miller, though holding himself to exchange flour for the wheat at any time, was only bailee, and ordered the wheat given to the depositors and not held as part of the mill's assets.

BALTIMORE GRADES ABROAD.

Someone in the Hamburg market is striving to destroy the reputation of Baltimore grades abroad or else the inspector's certificates have been changed or mixed, for we are certain that no Baltimore inspector would grade dirty, smutty yellow wheat full of garlic, No. 2 red winter. If there be any such inspector he should be discharged immediately in the interests of the export trade of Baltimore and the United States. If the statements of the Hamburg receiver were not so specific he might be charged with being prompted by spite or prejudice or interest in another export market, to club the Baltimore trade. His charges are very specific, and if Baltimore's Chief Inspector so desires he can readily learn whether the charge is true or false, and if true how the error occurred. He should, in the interest of that port's export trade, make some reply to the charge which appeared recently in the *Corn Trade News* of Liverpool. It is as follows:

Sir:—Will you oblige me by stating in your paper if it is proper to have a long-berried yellow wheat, of which I send you a sample, full of garlic and badly cleaned, shipped and certificated as "No. 2 Red Winter."

Garlic is dreaded by our millers as a pest, and even steamer grade is objected to on that account. Is there any protection against this abuse? In your book of grading it is expressly stated that garlic is often present in commoner steamer grades, and I never had such wheat tendered as No. 2 red winter.

This wheat has been shipped from Baltimore by * * * * by the steamer "Polynesia," and millers here reject it, saying it is a base fraud to make this wheat No. 2 red winter.

Yours, etc.,

PH. WINTER.

Hamburg, Aug. 22, 1893.

The rules of the Baltimore Corn and Flour Exchange provide that "No. 2 red shall be dry, sound, reasonably clean red winter wheat, and may contain a very limited number of white grains."

If Baltimore or any other export port desires to retain and increase its export grain trade, its grades must be honestly and stringently maintained. Grain from that port competes in European markets with grain not only from other United States ports but with grain from many other countries. The competition is severe, and a few misinspections will bring that port's grading into a disrepute that cannot be erased by years of careful and honest work.

IRREGULAR BUYERS AT COUNTRY STATIONS.

A Nebraska elevator man tells a doleful tale in this number of how the irregular buyers have visited his market of late years and attempted to rob his firm of the bulk of the business during the busy season, and how the irregular buyers have neither taken away a profit nor left any for the regular dealers.

It is a complaint that country elevator men and regular dealers have made many times before and are likely to make many times again. Those who have not had trouble with agents have had their business cut into by scalpers, track shippers or by sharks who seldom spend more than a week at one place. Many transient buyers cannot stay longer in a place and some cannot stay that long. Their tricks are soon found out and they are compelled to seek new fields.

If country dealers would induce local newspapers to thoroughly air the trickery of these sharks, farmers would be backward in having any dealings with them. Marked copies of the country newspapers mailed to journals published in the interests of the grain trade would be the means of spreading the news of the trickery among dealers at country points and of preventing the scoundrels being received with open arms at any station where the dealers were readers of grain papers. The publication of such matter would have a wholesome effect upon the tricksters and tend to discourage the dishonora-

ble practice of the irregulars which brings the trade into so great disrepute.

The time is now upon us when the irregular buyers of all classes have commenced to buy or are looking about for a station where the prospects of large receipts and little competition are good. The attractions of the trade are unusually bright, but money is scarce, so their number will probably be less than in ordinary times. That regular dealers are duty bound to do everything in their power to protect their business from the inroads of the irregulars is patent, and where they can assist one another it will prove indirectly to their interest to do so.

The Illinois Grain Merchants' Protective Association at one time attempted to boycott dealers at terminal markets who put irregular buyers in the market of any member. It was not without good effect, although it may not have effected the full result desired. A Northwestern judge has recently sustained an association of lumbermen in boycotting a large dealer because he entered the market of a member and cut into his business. The same court would find the grain dealers justified in boycotting the dealer who sent out irregular buyers.

MOVING THE WHEAT.

The anxiety felt as to the possibility of moving the Northwestern wheat crop has largely disappeared. Not only has the financial outlook brightened very materially, but the problem has been simplified by taking hold of it in good earnest. Some of the elevator companies have as much money as ever, while others are resorting to drafts and grain scrip. Both drafts and scrip are available wherever merchants agree to take them, as they will very generally, as they can liquidate indebtedness at St. Paul and Minneapolis with them. Many of the companies have always paid for grain in sight drafts on Minneapolis and St. Paul, and no question has ever been raised as to this method, the drafts passing practically as cash and always being paid when presented at the bank upon which they were drawn. A resort to clearing house checks has not been made. In Iowa the country merchants have been helping out the farmers where grain men have been short of cash. The offerings of wheat will not be as large, we think, as many have predicted. A disposition exists everywhere to help move the crops, and this appreciation of the situation will smooth out many of the difficulties that are apparently in the way. But more than all else, money is loosening up everywhere, and the local banks have a very large share of it. This, we think, will appear later on. With occasional hitches the wheat will move all right. A month ago this appeared impossible, so far have we already traveled on the road of financial convalescence.

FEED FOR STOCK IN EUROPE.

It is likely that we haven't heard the full extent of the fodder famine in Europe. It is true that we have witnessed the very unusual spectacle of shipping hay abroad; but from the report of American consuls it seems that the scarcity of stock feed in some parts of Europe has been much greater than was supposed at the time. So great were the shipments of hay and straw from the Austro-Hungarian empire to less favored neighbors that further exports were recently prohibited. In Great Britain, as reports show, the drouth has been terrible. In Germany the result of the year's dry weather has been shown in the extensive slaughter of cattle and sheep, the reason being that there was nothing to feed them. The war minister has ordered a ration of imported corn, mixed with oats, for the army horses on account of the scarcity of home grown fodder crops.

The effects of this fodder famine will be twofold, aside from the actual importation of food

for stock. A scarcity of animal feed always leads to a decrease in the numbers of stock. This has already occurred, and we may soon expect an enlarged demand for our American meat. But when grass crops are a failure it is folly to expect that grain crops will be large at the same time. It is altogether likely that the shortage of wheat and rye in Western Europe is much larger than has been supposed, and that the extent of the damage done by the drouth will be apparent later on. This may account for the holding up of foreign demand in spite of the oft-reported glut of American grain in sight abroad. We would not look about for material to construct a bull argument, for bull arguments are dangerous things to meddle with; they are too often loaded; but it is well to watch developments and see if full force has been given to the effects of the European drouth as reflected in our markets.

SHOULD BE PROTECTED AND ENCOURAGED.

That the country elevatorman, who absorbs part of the duties of the common carrier and bears the expense and trouble therefor without recompense, is entitled to some advantage over track shippers will be contradicted by no one who will take the time to carefully consider the circumstances in the light of justice and fairness.

The elevator that is open the year around brings benefits to the carrier, the farmer and the town where it is located. The carrier is benefited in that the quantity of grain shipped is greater than it would be were it impossible for growers to dispose of grain of any quantity of any quality at any time, for much of it would be fed or be permitted to spoil if the farmer had not such accommodations for disposing of his grain. The earning power of the carrier's rolling stock is increased by the prompter loading of cars made possible by the facilities of the elevator. The farmer can get cash for his grain at any time of the year and is not compelled to sell his grain during the fall and winter when the track shippers are in the market. The town with an elevator open the year around has a great advantage over neighboring towns that have not, in that much trade is attracted to its stores that would otherwise go elsewhere.

The elevator man is supposed to make a living out of his plant, and sometimes does, but whether he does or does not, self-interest should prompt carriers, farmers and towns to encourage him in his business. Before the Interstate Commerce Law went into effect and the railroad companies had an excuse for not dealing fairly with their patrons most every carrier encouraged the elevator man by giving him a rebate of 2 to 5 cents on every 100 pounds shipped. They could do so now if they so desired and by so doing they would discourage in a degree the track shipping abuse which delays cars and interferes with the business of all shippers.

At some stations farmers have rightly refused to sell their grain to irregular buyers when the elevator man would pay the same price. They prefer to deal with a man they are acquainted with and whose business interest is at stake to prompt him in dealing honorably with them. A Kansas dealer who took hold of a run-down elevator business, in despair advertised that "I will pay cash, and as much as anybody, for grain. I keep my house open the year around for the accommodation of grain-growers and will deal with you fairly." He persistently advertised these facts and others by frequently changing his advertisement in his local paper and soon had many new patrons.

Several Western towns recognizing the advantage of having an open grain market the year around have encouraged the building of elevators by charging a license of \$30 to \$50 per month for transient buyers. It prevents the market being brought into disrepute among the

farmers by the trickery of the cheap John scalpers who race about from station to station during the busy season and prey upon whoever comes their way. The elevator man pays taxes at his station and patronizes the home merchants the year around, so for another reason is entitled to have his business protected by the town.

MINNESOTA GRADES RESTORED.

It will be remembered that last year the Minnesota Railroad and Warehouse Commission reduced the requirements for the admission of spring wheat to the Minnesota grades. The crop of 1892 was light weight, but otherwise met all the requirements, so was admitted to the grades. This concession was withdrawn at a recent meeting of the commission, and the crop of 1893 will be graded according to the old grades, which are as follows:

No. 1 Hard spring wheat must be sound, bright and well cleaned, and must be composed mostly of hard Scotch fls, and weigh not less than 58 pounds to the measured bushel.

No. 1 Northern spring wheat must be sound and well cleaned, and must be composed of a hard and soft varieties of spring wheat. Note.—It is to be understood that the minimum test weight of this grade shall not be less than 57 pounds to the measured bushel, and must contain not less than about 50 per cent. of the hard varieties of spring wheat.

No. 2 Northern spring wheat must be sound, reasonably cleaned and of good milling quality. Note.—This grade to include all wheat not suitable for the higher grades, and to weigh not less than 56 pounds to the measured bushel.

No. 3 spring wheat shall comprise all inferior, shrunken or dirty spring wheat, weighing not less than 54 pounds to the measured bushel.

Rejected spring wheat shall include all spring wheat that is grown, badly bleached, or for any cause unfit for No. 3 wheat. Note.—Wheat containing admixture of "rice" or "goose" wheat will in no case be graded higher than rejected.

UNIFORM GRADES FOR MISSOURI AND KANSAS.

The grain inspectors of Kansas and Missouri held a meeting at Kansas City recently and succeeded in doing what has been long desired by those connected with the grain trade of the Southwest. They adopted uniform grades which will be used in all the markets of the states named. A new grade was established which will give millers and dealers some protection against weevily wheat. No wheat containing live weevil will be graded, and inspectors of both states will give the kind of wheat, its test weight and note the presence of the weevil.

The grade for No. 1 red winter wheat was changed to read: "No. 1 Red to be bright, sound, plump, dry and well cleaned red winter wheat, weighing not less than 61 pounds to the measured bushel." The grade of No. 2 red winter wheat now reads: "To be sound, well cleaned, dry red, weighing not less than 59 pounds to the measured bushel."

The former grades of rejected white winter, Nos. 1, 2 and 3 Mediterranean, Nos. 2, 4 and rejected of Northern fall wheat, and Nos. 1, 2 and 3 soft spring wheat were dropped.

No. 1 spring wheat must be bright, sound and well cleaned spring wheat. No. 2 same must be bright, sound spring wheat, reasonably cleaned. No. 3 same must include all dry and reasonably sound spring wheat not equal to No. 2.

The grading of No. 3 rye was changed. The rye in this grade must be reasonably sound and reasonably clean and unfit to be graded as No. 2.

Nos. 1, 2 and 3 yellow corn must be seven-eighths yellow.

This will greatly facilitate and encourage trade between the states and with those outside the state. The grains handled in the markets of each are much the same, and it is a wonder the trade has not demanded uniformity and simplicity in grades long before.

EDITORIAL MENTION

SEE that your cars are well coopered before loading.

THE demurrage charge should be abolished or be made reciprocal.

SUBSCRIBE for the only journal devoted exclusively to the interests of the grain trade.

THE use of the cental system would save every grain dealer much work and many expensive errors.

AS THE season for grain blockades approaches we are reminded that a time delivery clause is needed in bills of lading.

A BIG business in low grade wheat is being done in Chicago now; but the stuff is coming in faster than the trade can take care of it.

YOUR visit to the World's Fair city will be incomplete if you do not call upon the AMERICAN ELEVATOR AND GRAIN TRADE, Room 5, 184 Dearborn street.

WHEN thinking of our enormous export hay trade, do not forget that so far this year we have imported, as we did last year, more hay than we have exported.

WHEN renewing your subscription or sending us a communication on any subject, do not fail to send us for publication a report of the condition of crops in your district.

WHEN grain dealers organize strong, active associations and employ men of ability to look after common interests, traffic managers will give heed to their petitions and demands.

THE rice growing territory of the country now offers a new field for the services of the elevator builder. The annual crop is becoming so large as to demand that it be handled in bulk.

PROGRESSIVE men are advocating the adoption of an international decimal system of weights, measures and moneys to facilitate and encourage international trade. America should take the lead.

DESPITE the hard times and tight money grain dealers continue to erect elevators. They see a brisk trade just a little way ahead. Those that are prepared to take care of it will get the business.

COUNTRY elevator men could often raise their grain one grade, and sometimes two grades, by carefully cleaning it. The increased returns would always be several times the expense of cleaning.

THE grain shipping business should be conducted in a businesslike manner. Clean bills of lading should be secured and the loss caused by shortages placed upon those responsible for the shortages.

IN this issue is advertised a new and excellent telegraph cipher which also contains a directory of the New England trade. The name and address of every New England dealer in flour, grain, hay and straw is given in the book. The cipher is used extensively by the New England

dealers, and it will prove of great assistance to anyone desiring to do business with them.

WE are indebted to the *Evansville Courier* of Evansville, Ind., for the excellent portrait of the late North Storms, which is presented in this issue.

KINGSTON, ONT., is so badly in need of a grain elevator that there is some talk of bonding the city for the necessary cash. Private enterprise, it would seem, should take advantage of such urgent needs.

THE word "new" was dropped from Chicago inspection certificates of oats Aug. 15, and of rye September 1. It will be continued in the inspection certificates of wheat until November 1, and of barley until May 1.

LAST year the wheat crop harvested in the Dakotas and Minnesota amounted to about 127,000,000 bushels, of which, up to September 1 of the present year, 42,000,000 bushels were marketed at Duluth and 65,000,000 bushels at Minneapolis.

GRAIN men and millers visiting the World's Fair should avail themselves of the invitation of the Barnard & Leas Mfg. Co. to call at Column Q, No. 53, Machinery Hall Annex, and inspect the fine line of elevator machinery there displayed.

IT is not safe to have the elevator office inside an elevator put up by a barn builder. The grain gets heavy and the elevator tired. A collapse follows and all beneath is crushed. Now is the accepted time of the year for these failures; look out!

A. SCHWEITZER of Paris, France, is now in this country for the purpose of introducing a new insecticide for exterminating weevil and other vermin which infest grain storehouses, and a new system of flour making for small country millers and farmers.

THE Alliance workers who expected to run Minnesota's state grain elevator on the socialistic plan have been struck by a panic worse than any country yet heard from. Even the Northwest crop reports have been discouraging since that injunction was granted.

DO NOT use flimsy temporary car doors unless you want your grain scattered along the route to its destination. Heavy loads will cause the temporary doors to bulge and the grain leaks out. Put strong cleats diagonally on the weak doors and reduce the leakage.

MANY grain commission men do not advertise their business because they have gone out of the business, others because they do not want shippers to know they are after business or wish to select their patrons. Those whose cards appear in this issue belong to neither class.

A RUSSIAN engineer, in a communication in this number, shows why the time is ripe for pushing our trade in grain cleaning machinery with that country. A great market is open to our manufacturers, but it will profit them little if they do not push the trade direct.

THE September report of the Agricultural Department gives the general average condition of rye at 82, against 88.5 last year, and 95.1 the year before. It is the lowest condition for years. Barley shows a slight falling off from the preceding month, the condition being 83.8, against 87.4 in September last year. The average condition of buckwheat was 77.5, against 89 in 1892. It has not been so low before for twelve

years. The area from which clover seed will be harvested is nearly 10 per cent. less than last year, and the condition is 78.3, which indicates a scant crop.

TWO DOLLARS expended for information will frequently bring you a return of fifty times that much. It will always bring you a large return when invested in the weekly *Hay Trade Journal* and the AMERICAN ELEVATOR AND GRAIN TRADE. You can get both one year for \$2. Try them, and you will never do without them.

SOME more dirt has been thrown upon the corpse of the Hatch Anti-Option Bill. A rule was recently adopted by the House providing that "All measures which on their face purport to raise revenue shall go the committee on ways and means." Such a bill as Hatch proposes for the prevention of dealing in futures would be buried by that committee and the former cannot have it referred to his committee under any consideration.

THE friends of the cental system of weights and measures are hard at work in the United Kingdom, where a standard measure for the sale of grain is about to be adopted. The railroad rates are based on the hundredweight of 112 pounds. This standard goes well with England's money system, and it will probably be adopted as it was recommended by the committee. The cental system is used more extensively than any other. It is well suited to be used with a decimal system of money, such as ours, and the sooner we adopt it the sooner will our trade with foreign lands be facilitated.

A JUMBO grain transfer car has been put into service at Sioux City, Ia. It is supposed to transfer grain from car to car without getting the grain wet and without mixing one kind of grain with another. It is also expected to weigh correctly all grain transferred. The car is 55 feet long, 10 feet 8 inches wide, and 14 feet 10 inches high. It was built in Chicago and run out to the Missouri, so the scale blades may be a little dull, but shippers will not mind a loss of 500 or 600 pounds to the car. The men in charge of the car will always sweep out clean cars unloaded and ever guard carefully against leaks in cars loaded.

THE railroad companies should reduce their minimum weight for carload rates on hay, or provide larger cars. The present regulation is a mere ruse for bleeding the shipper, and the longer it is tolerated the stronger will traffic managers be tempted to provide new impositions and excuses for robbing shippers. No carrier can legally collect for 20,000 pounds unless it provides cars of that capacity. A few lawsuits would bring them to their senses. However, a protest sent immediately to C. E. Gill, chairman of the National Transportation Committee, 143 Liberty street, N. Y., will have some effect. Protest and petition now, do not wait.

TRACK scales in Kansas is one thing sought and greatly desired by farmers, as they could then feel safer in ignoring the elevator men than at present. The traffic managers know the unreliability of track scales, so are averse to giving clean bills of lading for grain weighed upon them. The best way out of the difficulty for carriers is to offer one-fourth of a cent a bushel, payable annually, for all grain loaded out of country elevators equipped with hopper scales. This will insure correct weights and induce farmers to ship through country elevators instead of loading direct to car as now. All would gain correct weights, carriers would not have their cars detained so long for loading, farmers could haul to the elevator as they found it convenient and store in special bin until they had a

load, and the country elevator man would have an income from storing and weighing.

J. W. Taylor of Atlanta, Ga., representing the Stilwell-Bierce & Smith-Vaile Company of Dayton, O., called upon us and reported his firm very busy indeed, running both night and day. It is pleasant to record the increasing evidences of the revival of industrial activity.

THE American Seed Trade Association, at its recent meeting in this city, elected the following officers for the ensuing year: President, W. W. Burpee, Philadelphia; vice-presidents, D. I. Bushnell, St. Louis; S. F. Leonard, Chicago; secretary-treasurer, A. L. Dow, New York.

THE low price of wheat in the Northwest is having one curious result. While the crop is believed to average exceptionally well the receipts show a very large preponderance of No. 1 hard and No. 1 Northern. The explanation given by an expert is that farmers are feeding a great amount of low grade wheat to their hogs.

DULUTH and Superior now count up an elevator capacity of 32,200,000 bushels. It is divided as follows: Lake Superior Elevator Company, 7,750,000; Union Improvement and Elevator Company, 4,900,000; Duluth Elevator Company, 5,000,000; Great Northern Elevator Company, 3,290,000; Superior Terminal Elevator Company, 5,000,000; Belt Line Elevator Company, 5,000,000; Mill elevators, 1,350,000.

A SCHEME devised by Kansas farmers to provide their brethren in the drouth-stricken Western portion of the state with seed wheat, proposes to take notes bearing 8 per cent. interest for the wheat advanced, and charge 5 per cent. for the trouble, basing the price to be paid on what wheat is worth on Oct. 1, 1894. Thirteen per cent. on present prices, and possibly 20 per cent. on the price next year is hardly generous dealing with the unfortunate.

THE meeting of governors and other representatives of the Trans-Mississippi states in this city, to consider the feasibility of a gulf route to Europe came off according to programme. The European end of the proposed route is Copenhagen, and Denmark seems to be the only European country that has taken any interest in the proposed scheme. What gulf port is to be adopted as the favored child of Gov. Lewelling has not been decided upon. Galveston, New Orleans and Velasco are all candidates.

GRAIN shippers in company with other shippers should demand a uniform bill of lading, with a clause limiting time for delivery without penalty to a reasonable number of days after placing grain, etc., in car. Carriers are anxious to have their cars kept moving, and especially anxious to keep them busy during the rush of grain to market. They consider idle property unprofitable, so charge grain shippers for delaying cars when loading or unloading. When carriers cause delay of cars and grain no demurrage is charged at present, but it should be. Demurrage should be reciprocal. The charge for delay is at present used only as a flimsy excuse for bleeding the shipper and receiver.

ON September 14 the Rappahannock left Newport News for Liverpool, carrying as a part of its cargo 40,000 bushels of wheat and 370 head of cattle. This item would not be especially interesting except from the fact that the Rappahannock is the first of the steamers of the Chesapeake & Ohio Steamship Company, and this is her first trip. Heretofore the business from Newport News has been done by tramp steamers, and while Newport News had all the

equipment of a great port, its business was hampered by the lack of a regular line of steamers, which will now be supplied. The other steamers of the line will be in commission in the course of a couple of months.

GRAIN shippers are entitled to a clean bill of lading for bulk grain, and should persist in demanding it until traffic managers grant it. They are just as much entitled to it as shippers of any other kind of freight, but they will not get it without working for it. Clean bills of lading would enable shippers to hold carriers liable for loss of grain in transit and at terminal elevators. Sound, strong cars would be supplied shippers and they would be vigilantly guarded when standing in freight yards.

THE cental system of weights, which was adopted by the seed trade last January, is growing in favor and is now used by the trade in every important market of the country. The decimal system of weights and measures is by far the simplest, and its use would greatly facilitate the buying and selling of grain. We use the 100 pounds in weighing and in shipping grain, but when we come to sell we use another standard. This adds only to the difficulties which burden the trade and admits of many errors being made in reducing a quantity of grain from one standard to another. Let us adopt the best system and use it exclusively.

THE County Court of Bloomington, Ill., recently gave an important decision affecting the interests of farmers and grain dealers. A farmer sold 1,500 bushels of corn to a dealer, drew \$400 on the contract and failed to deliver the grain, but sold to another dealer. He was indicted for obtaining money under false pretenses. The court decided that since the farmer had the grain when he contracted to sell he committed only a breach of trust, which is not a crime, but if he had not had the grain when he made contract then he would have been guilty of obtaining money under false pretenses. If the dealer had sued for breach of contract and damages suffered by such breach he would no doubt have secured judgment for the full amount of his loss.

RICE IMPORTS AND EXPORTS.

The imports of rice amounted to 1,461,358 pounds, valued at \$22,343, during the month of July, against 3,953,600 pounds, valued at \$76,690, for July, 1892. During the seven months ending with July 41,625,915 pounds, valued at \$692,826, were imported, as compared with 49,662,754 pounds, valued at \$988,060, imported during the corresponding months of 1892.

Rice aggregating 441,000 pounds, valued at \$16,272, was imported free of duty under reciprocity treaty with Hawaiian Islands in the month of July, against 1,253,900 pounds, valued at \$55,175, imported in July, 1892. During the seven months ending with July 2,825,300 pounds, valued at \$103,327, were imported, compared with 5,223,200 pounds, valued at \$235,113, imported during the corresponding months of 1892.

We re-exported 912,765 pounds of foreign grown rice, valued at \$16,971, in July, against 665,952 pounds, valued at \$13,414, in July, 1892. During the seven months ending with July 6,578,125 pounds of foreign grown rice, valued at \$124,165, were re-exported, compared with 5,961,428 pounds, valued at \$122,722 for the corresponding months of 1892.

Of foreign grown rice admitted free of duty under reciprocity treaty with Hawaiian Islands 360 pounds, valued at \$19, were re-exported in July, compared with 449 pounds, valued at \$27, re-exported in July, 1892. During the seven months ending with July 5,891 pounds, valued at \$231, were re-exported, as compared with 1,589 pounds re-exported during the corresponding period of 1892.

Exports of clover seed from New York from January 1 to August 26 aggregated 14,847 bags, against 35,962 bags during the same period in 1892.

Trade Notes.

The Lundberg Scale Company has been incorporated at Troy, N. Y., to manufacture weighing scales. Capital \$100,000.

The Barnard & Leas Manufacturing Company of Moline, Ill., have recently brought out a new corn sheller and cleaner.

The Standard Manufacturing Company of Kansas City, Mo., dealers in hay presses, etc., has made an assignment. Assets \$75,000; liabilities \$42,000.

The Weber Gas & Gasoline Engine Company of Kansas City, Mo., report that in spite of the general business depression, business has been very good indeed. They are well booked with orders, and the prospects for future business are very flattering.

Bags valued at \$52,489 were exported in July, compared with an amount valued at \$30,041 exported in July, 1892. During the seven months ending with July bags valued at \$265,408 were exported, compared with \$340,352 for the corresponding months of 1892.

The Twin Baler Manufacturing Company of Kansas City, Mo., filed articles of incorporation recently, with a capital stock of \$2,100. The object is to manufacture and sell a double chamber hay press. John F. Heaton, Charles E. Washburn and Albert F. Batt are the stockholders.

The O. P. Huffman Co., commission merchants in hay, straw, grain, feed, etc., at New York, N. Y., write us that "the New York Produce Exchange has put into effect rules for grading hay and straw, and have appointed an inspector-in-chief and weigher, and that the hay business will be conducted in the future on more businesslike principles."

Bags and bagging valued at \$259,258 were imported during July, against an amount valued at \$335,485, in July, 1892. During the seven months ending with July bags and bagging valued at \$693,660 were imported, against \$1,049,357 during the corresponding months of 1892. Burlaps, valued at \$504,374 were imported in July, against an amount valued at \$506,161, imported in July, 1892. During the seven months ending with July burlaps valued at \$3,896,741 were imported, against an amount valued at \$3,944,605 for the corresponding months of 1892.

Of imported bags and bagging we re-exported an amount valued at \$1,784 during the month of July, against an amount valued at \$3,199 in July, 1892. During the seven months ending with July an amount valued at \$28,042 was re-exported, compared with \$22,724 for the corresponding months of 1892. Of imported burlaps we re-exported an amount valued at \$34 in July, while none was re-exported in July, 1892. During the seven months ending with July burlaps valued at \$1,444 were re-exported, compared with \$1,006 for the corresponding months of 1892.

The remarkable yield of 65 bushels per acre of wheat was reported to the John A. Salzer Seed Company of La Crosse, Wis., by Frank Floss of Iowa on a field of Salzer's World's Fair winter wheat.

The receipts and export seed at and from the port of Baltimore, Md., from May 1 to Sept. 1, 1893, inclusive were: Receipts of clover seed, 10,720 bushels; timothy seed, 6,488 bushels. Exports of clover, 522 bushels; timothy, 551 bushels; grass, 9,031 bushels; flax, 24,523 bushels.

An appeal has been issued by Secretary Mohler of Kansas State Board of Agriculture for seed wheat and money with which to buy it, for farmers of Western Kansas. The appeal also states that the popular opinion that Western Kansas is not adapted to the growing of wheat, is erroneous.

It is stated by Sioux City grain men that there is not an elevator within a hundred miles of that city that is buying grain or that is likely to be able to buy for some months. They can get no money for grain on hand and the prospects are that the new crop will have no market at all.—Signal, Grinnell, Ia. Reports like the foregoing are more influential than hold-your-wheat circulars, but they are not true. Dealers are buying and will continue to do so.

ELEVATOR AND GRAIN NEWS

Hardwick, Minn., will have a new elevator.
An elevator will be built at Arkansas City, Kan.
The new elevator at Byron, Minn., is completed.
C. W. Swain, hay dealer at Inman, Neb., has sold out.
Geo. P. Emig, grain dealer at Ord, Neb., has sold out.
A new grain elevator will be built at Winnipeg, Man.
The Farmers Elevator at Indian Head, Man., is now completed.
H. Mueller & Co., grain dealers at Chicago, Ill., have dissolved.
Wm. McElroy is preparing to build a new granary at Richwood, O.
The farmers of Murray county, Minn., will erect a large grain elevator.
The farmers' warehouse at Fulda, Minn., is open and ready for business.
A \$20,000 brewery will be erected at Mt. Pleasant, Pa., by local capitalists.
John Ell & Co. of Eureka, S. D., have purchased the J. W. Hoyt elevator.
The elevator at the Turmail flouring mill at Seymour, Ind., is completed.
F. Fensky will probably erect a 10,000-bushel elevator at N. Topeka, Kan.
A grain elevator is being erected at Purcellville, Va., by J. R. Smith & Co.
Wm. Young & Co., a grain commission company of Chicago, Ill., have dissolved.
Detwiler & Son, dealers in grain and hardware at Oakley, Mich., have sold out.
A. M. Stewart has built a cotton oil mill of fifteen tons capacity at Smiley, Tex.
The work on the new farmers' elevator at Magnolia, Minn., is progressing rapidly.
The Farmers' Elevator Company at Baldur, Man., has applied for incorporation.
The new cotton seed oil mill at Bowie, Tex., began operations early in September.
Fred Winterbottom is changing his warehouse at Bowdle, S. D., into an elevator.
Mr. Messenger of Albert Lea, Minn., has supplied his elevator with a new engine.
The farmers' elevator at St. Peter, Minn., was ready for business September 1.
Mr. Carter has added a third warehouse to the two he now owns at Albert Lea, Minn.
An effort is being made to organize a farmers' elevator company at Lanesboro, Minn.
A. B. Arends, grain and lumber dealer at Cleves, Ia., has moved his business to Sibley, Ia.
Hill Bros. & Co., a grain commission firm of Chicago, Ill., have dissolved partnership.
Mr. Williams has leased the elevator at Cheney, Wash., and will handle grain in bulk.
Stokes & Miller's new flat warehouse and elevator at Brownsdale, Minn., is about completed.
The John Belts elevator at Fairview, Kan., has been sold under mortgage to Frank Schilling.
Theo. Knapstein & Co. at New London, Wis., are enlarging the capacity of their brewery.
John J. Brown, grain buyer of Barrie, Ont., has assigned to O. H. Lyon of the same place.
The New Orleans Rice Company is erecting a grain elevator and storage rooms at Sunset, La.
E. Lampher of Madelia, Minn., will have charge of the Farmers' elevator at St. Peter, Minn.
W. P. DuVigneaud & Co. of Chilton, Wis., extensive dealers in grain, have made an assignment.
The A. E. Ripley Commission Company has succeeded Wakefield & Wood at Seattle, Wash.
Everett & Butterfield, grain and lumber dealers at Coleridge, Neb., have dissolved partnership.
H. Newton will erect an elevator and feed mill at Wolsey, S. D., to be run by artesian power. If the

development of the well proves a success he will also build a flour mill.

The citizens of Sandersville, Ga., have in contemplation the erection of a cottonseed oil mill.

Sheahan, Jackson & Co., grain and provision dealers at Augusta, Ga., have dissolved partnership.

The elevator which was burned at Westport, Minn., will be replaced in time for receiving wheat.

The dissolution of partnership of Gravel & Phaneuf, hay dealers at Montreal, Que., is announced.

An elevator with a capacity of 25,000 bushels will be built at Rosebank, Man., on the N. P. Ry.

Meller & Smith have succeeded the firm of S. R. Meller, dealers in broom corn at Sullivan, Ill.

Wells, Pearce & Co. of Morris, Minn., will rebuild their warehouse recently burned at that place.

The new elevator at Chickasaw, I. T., with a capacity of 20,000 bushels is nearing completion.

The rice mill companies at Crowley, La., are rapidly pushing forward the completion of their mills.

Spencer & Co., a grain commission firm of Minneapolis, Minn., have opened an office at Duluth.

The construction of the new 15,000-bushel grain elevator at Bagot, Man., will soon be commenced.

E. A. Brown has enlarged his grain warehouse at Hills, Minn., and transformed it into an elevator.

The farmers' warehouse at Mapleton, Minn., has already taken in over 2,000 bushels of new wheat.

The Gus Leisy Brewing Company at Peoria, Ill., has changed its name to the Leisy Brewing Company.

Colton Bros., at Bellefontaine, O., have recently increased their elevator capacity to 100,000 bushels.

The advisability of assisting to build an elevator is being considered by the citizens of Kingston, Ont.

The elevator at Centralia, Kan., operated by D. W. McEwen, has passed into the hands of S. C. Smith.

Building operations are in progress on an elevator at Portage la Prairie, Man., for Philips & Richardson.

The El Reno Elevator at El Reno, Okl., is open and doing a good business. Henry Lassen is proprietor.

Extensive improvements are being made in the elevator at Lisbon, N. D., by the owners, Rawson & Co.

The grain commission house of Weir & Hallett at New York, N. Y., has been dissolved by mutual consent.

J. W. Sparling has commenced putting improvement and power into his grain warehouse at Oakville, Man.

The work on the Tyler Elevator and mill at Junction City, Kan., is being pushed rapidly to completion.

Lee Johnson of Kalispell, Mont., has built a large warehouse to hold the grain he has harvested this year.

The elevator at Lewiston, Minn., built by the farmers, will be completed in time to handle the present crop.

W. K. Roland, dealer in hardware and grain at South Haven, Kan., has been succeeded by Clapp Bros.

The Jacobi Elevator Company has commenced building a new 50,000-bushel elevator at Ardock, N. D.

Cox & Dickson, dealers in grain and coal at Laurel, Ia., have been succeeded by the J. F. Patton Company.

It is reported from Plana, S. D., that only one of the three elevators at that point will do business this season.

Gage & Andrews have leased the Northern Pacific Elevator at Casselton, N. D. H. M. Powlison is in charge.

The Consolidated Brewing Company of Columbus, Ga., with a capital of \$100,000, has applied for a charter.

Welch Bros. of Central Point, Ore., have recently overhauled their warehouse and put in some new machinery.

Mack, Sherman & Co., grain and lumber dealers at Bayard, Ia., have been succeeded by Sherman, Johnson & Co.

A 22,000-bushel elevator is in process of construction at Villard, Minn., by the North Dakota Elevator Company.

The Great Northern railroad is making an effort to give the farmers in the vicinity of Seattle, Wash., and the Big Bend country the benefit of competition for the purchase of their product. Besides Balfour,

Guthrie & Co., other firms are making arrangements to handle wheat.

The annual meeting of the stockholders of the Northern Grain Company was held at Ashland, Wis., August 16.

Elevator companies in general this year are giving bank checks in pay for wheat instead of cash as heretofore.

Work commenced on the first elevator to be built on the Sioux Falls & Yankton line the first week in September.

The grain dealers at Chatfield, Minn., have decided not to store grain, but to ship it in carload lots as fast as received.

The Albert Dickinson Company are building a seed warehouse at the corner of Beach and Taylor streets, Chicago, Ill.

Many grain dealers throughout the country have quit buying grain because they cannot get the money to pay for it.

Head & Bossons have commenced the erection of a new elevator at Sintaluta, Man. It will be completed by October 1.

John Kussler and Gottlieb Mix of Eureka, S. D., have purchased the grain warehouse at that place of John Ell & Co.

A cleaning elevator is being built at the crossing of Harrison street and the Pan Handle Railroad tracks at Chicago, Ill.

The cotton seed oil mill at Caldwell, Tex., was completed in August and the machinery is now in perfect running order.

The West Mansfield Elevator Company at West Mansfield, O., has been incorporated with a capital stock of \$10,000.

The elevator at McPherson, Kan., formerly operated by the Kansas Grain Company, has been leased by W. G. Harry & Son.

The P. B. Mann Company has succeeded to the grain commission firm of Mann-Fraser Company at Minneapolis, Minn.

Roblin & Armitage, grain dealers at Winnipeg, Man., have dissolved partnership. R. P. Roblin will continue the business.

The J. D. Tobey Hay and Grain Company of Chicago, Ill., have been licensed to incorporate with a capital stock of \$250,000.

One of the four elevators buying wheat at Litchfield, Minn., floats a promissory note plan of payment. The other three pay cash.

Philips & Richardson of Portage la Prairie will erect a new elevator at Oakville, Man. Operations have already commenced.

A charter has been granted by the secretary of state to the Texas Cotton Seed Company of Houston, Tex. Capital stock \$20,000.

The grain elevator at Argentine, Kan., formerly operated by the Midland Elevator Company, has been leased by Davidson & Smith.

Mathewson & Co., general merchants of Bradley, S. D., are building an elevator at that place and will buy regularly on the market.

The Yazoo & Mississippi Valley Railroad will erect a grain elevator at New Orleans, La., the estimated cost of which will be \$54,000.

The dissolution of partnership is announced of the firm of Philips & Faler, grain, coal, lumber and live stock dealers at Inland, Neb.

W. P. Brown, dealer in grain and lumber at Coffeyville, Kan., has been succeeded by the Citizens' Lumber and Implement Company.

The Prairie Du Chien Wheat Company at Prairie Du Chien, Wis., has filed articles of incorporation, with a capital stock of \$20,000.

The Midland Grain and Stock Commission Company at Chicago, Ill., has been licensed to incorporate with a capital stock of \$100,000.

Tromanhauser Bros. have the contract for erecting the new elevator which the Peavy Elevator Company will build at Minneapolis, Minn.

The directors of the Cokato local elevator at Cokato, Minn., at a recent meeting declared a dividend of 37 per cent. for the past year.

The E. M. Walbridge Elevator Company at Redwood Falls, Minn., have recently completed an elevator of 12,000 bushels' capacity.

M. G. Heald, who was for several years in charge of the mill at Ellinwood, Kan., has engaged in the grain handling business at Windom, Kan.

President Hill of the Great Northern Road is making preparations to handle the grain of Eastern Washington. Several elevators will be built at central points. Platforms will be built at Galena and Espa-

nola, and warehouses will be constructed at Waukon, Edwall, Moscow, Harrington, Coal Creek, Parker and other points west.

The Central Texas Cottonseed Oil Company has been chartered, with headquarters at Temple, Tex. The capital stock is placed at \$200,000.

The new grain elevator on the Louise Embankment at Quebec, Can., is now thoroughly equipped and ready to receive consignments of grain.

The Seattle Terminal Railway and Warehouse Company has repaired its warehouse at Seattle, Wash., so as to be in readiness for the new crop.

J. L. Danek and Anthony Casper have purchased the warehouse west of the Pioneer Elevator at Glencoe, Minn., for \$1,100 and will buy grain.

The first load of new wheat was brought to Albert Lea, Minn., August 12, and sold to the R. B. Skinner Milling Company for 50 cents per bushel.

The roller mill at Castlewood, S. D., has been purchased by W. H. Stokes, who will dismantle it and convert it into an elevator and flour depot.

The Thayer Commission Company of Kansas City, Kan., recently started up its new "National Elevator." It has a capacity of 100,000 bushels.

The Security Grain Company at Minneapolis, Minn., recently filed minor amendments to articles of incorporation in the office of the secretary of state.

The firm of Griggs Bros. have closed up their office at Minneapolis, Minn., and turned their trade at that place over to W. A. Townsend and D. H. Bliss.

Morton & Herriman, grain and flour exporters at Chicago, Ill., have dissolved partnership. The firm did a very large export trade in flour and grain.

The Conover Gee Company, a grain commission firm of Minneapolis, Minn., has changed the style of the firm name to the L. E. Gee Grain Company.

Charles T. Peavy of Kansas City, Mo., severed his connection with the Midland Elevator Company August 1 and will engage in business for himself.

D. B. Glasscock, a wealthy land owner in the vicinity of Harrington, Wash., will construct a big elevator at Harrington for the handling of wheat.

The Northwestern Farmers' Association has decided to build a 15,000-bushel storage elevator at West Superior, Wis. Work was commenced Aug. 15.

The Northern Pacific Elevator at Fergus Falls, Minn., has been leased by A. T. Lund of Vining. He will open it as soon as wheat is ready for the market.

S. J. Austin has retired from the grain firm of W. O. Dodge & Co., at Minneapolis, Minn. The business will be continued by W. O. Dodge and W. P. Brown.

George C. Howe of Casselton, N. D., has leased the Northern Pacific Elevators along the Fargo & Southwestern branch at Woods, Davenport and Leonard.

C. E. Severin & Co. have erected a warehouse in connection with their store at Chattanooga, Tenn., which is used for the purpose of storing produce and grain.

Elevators at Christine and Wild Rice, N. D., and Sisseton City, S. D., each of 15,000 bushels' capacity have been built, and will be operated by Strong & Miller.

The Chesapeake & Ohio Railroad has recently erected a new grain elevator at Richmond, Va., with a capacity of 125,000 bushels. The structure cost \$25,000.

Reeve & Crosby, grain commission merchants, at Minneapolis, Minn., have dissolved partnership. The business will hereafter be continued by Charles Crosby.

Work on the St. Louis B Elevator, built for the United Elevator Company at St. Louis, Mo., is progressing rapidly. It will have a capacity of 1,000,000 bushels.

Taylor, Spackman & Co., dealers in grain and groceries at Salt Lake City, Utah, will change the style of the firm to the Utah Produce and Commission Company.

The Vassar Milling Company's elevator at Vassar, Mich., which was burned August 1, is being rebuilt. The building, like the old one, will have a capacity of 30,000 bushels.

The S. Y. Hyde Elevator Company and the Cargill Elevator Company at La Crosse, Wis., have jointly issued a "hold-your wheat" circular to the farmers in the Northwest.

Articles of incorporation have been filed by the Farmers' Elevator Company of St. Peter, Minn., whose new elevator is now completed. The capital stock is \$15,000.

G. W. Van Dusen & Co. of Minneapolis, Minn., have leased the 48 elevators of the Red River Elevator Company, located on the Great Northern road and representing an aggregate capacity of about 1,500,000

bushels. E. E. Michell, former secretary of the Red River Elevator Company, and L. D. Marshall, the superintendent, will have the management of the houses.

The elevator which was recently burned at Westport, S. D., will not be rebuilt at present. Mr. Beaudrau will at once put up a building and take care of the grain himself.

L. H. Paige and O. H. Whitaker are the members of a new grain firm which has recently gone into business at West Superior, Wis. The style of the firm is Paige & Whitaker.

The Ninety-Six Oil Mill Company at Ninety-Six, S. C., has bought the plant of the Ninety-Six Manufacturing Company and will operate it instead of erecting a new mill.

The Belt Line Elevator at Superior, Wis., was started August 18 with a small force of men which will be considerably increased when the new crop commences to come in.

The American Rice Milling Company, Limited, has been incorporated at New Orleans, La., for the purpose of milling and dealing in rice, etc. The capital stock is placed at \$25,000.

In place of the Alliance Elevator destroyed by fire recently the farmers of Genesee, Idaho, will build a sack warehouse 50x150 feet in size and have it completed for the present crop.

The Ames & Campbell Company, wholesale grain and flour dealers at Denver, Colo., has given a bill of sale to the Colorado National Bank and the Loveland Mill and Elevator Company.

The first two carloads of rice, consisting of 2,000 bushels, were shipped from Kissimmee City, Fla., on August 19 for Charleston, S. C. The yield is estimated at 75 bushels per acre.

The Willow River Milling Company's Elevator at Hudson, Wis., together with a line of elevators and warehouses tributary to it have been purchased by the Northern Grain Company.

Eight hundred out of 1,000 elevators in the state of Minnesota whose operation would come under the new Peterson law for the regulation of houses at interior points have taken out licenses.

H. H. Camp and R. L. Day have purchased the Milledgeville Banking Company's cotton seed oil mill at Milledgeville, Ga. The plant will be overhauled throughout and put in operation.

The line of elevators owned by the Sawyer Elevator Company in Minnesota has been sold to another company. The transfer was made and business began by the new company on September 11.

A grain elevator of 25,000 bushels' capacity has just been completed at David, Ia., for the H. J. O'Neill Grain Company. Five weeks was the time taken to erect and place it in running order.

H. C. Haarstick, a grain exporter at St. Louis, Mo., received \$40,000 in gold from Europe recently for wheat shipped. He demanded and received the coin because of the high rate of exchange.

The Northwestern Grain Company have completed their elevator at Billingham, Minn., and their force of workmen are now at Belle Plaine, where the company is erecting another new elevator.

The three flour mills at New Ulm, Minn., have entered into an agreement whereby they will discontinue the storage of wheat at their grain houses, but will offer the highest market price in cash.

The G. B. Hess Company has been organized at Green Bay, Wis., with a capital of \$25,000 to deal in grain and produce. The incorporators are George B. Hess, Hermon A. Woller and Clement Masey.

The "Alliance Elevator" and store at Minneapolis, Kan., which recently suspended, did not achieve a great success in their dealings in wheat futures. The cost of their experiments was \$6,000 or \$7,000.

A stock company has been organized by some of the citizens at Artesian, S. D., for the purpose of buying grain. They have leased the Farmers' Warehouse and engaged a competent man to buy for them.

The total output of the combined tow mills of the Huron Manufacturing Company, proprietors of the tow mill at Huron, S. D., at Sanborn, Minn., and at Centerville, S. D., aggregate about 25 cars per day.

The E. L. Bonner Company of Deer Lodge, Mont., are erecting a large stone building to be used as a grain depot. The company expect to store a large portion of the grain of Deer Lodge Valley this fall.

A Montreal shipper bought 10 cars of old hay a short time ago at \$9.50 per ton f. o. b. at a Western point, making a special stipulation that the lot must be old hay. The ten cars arrived in the city last week, when it was found that they all contained new hay, and the draft made against them was in consequence refused. The country shipper holds that the

stipulation requiring the hay to be old is of no avail, as the shipment was good No. 2 hay, and therefore it matters not whether it was new or old.—*Trade Bulletin, Montreal.*

The Seekner Contracting Company of Chicago, Ill., is erecting an elevator at 6427 Wentworth avenue, Chicago, for A. F. Walther, and one at Forty-sixth street and Wabash Railroad tracks for Frank Marshall.

Hubbard & Palmer have received the new engine for their cleaning elevator at Lake Crystal, Minn. Some needed improvements besides the engine are going forward, including putting wheat pits in the basement.

George Spencer, receiver for the Lake Superior Elevator Company and the Union Improvement and Elevator Company of Duluth, Minn., has applied to the State Railroad and Warehouse Commission for licenses.

The new grain elevator at the Santa Fe depot, Washington, Ill., has a capacity of 75,000 to 80,000 bushels of grain and is run by a 10-horse power gas engine. The construction throughout is modern and complete.

The Midland Grain & Stock Commission Company at Chicago, Ill., has been incorporated, to do a general commission business. Capital stock, \$100,000; incorporators, J. E. Goodman, L. B. Hilles and George P. Smith.

H. S. Conover has retired from the firm of the Conover Gee Company, and will continue to do business at Minneapolis under the name of Conover & Co. Mr. Conover will make a specialty of the wheat shipping trade.

The court ordered that the wheat which was in store in the Patten & Smith Elevators at Le Sueur, Minn., should be sold. Sealed bids for the purchase of the wheat were received by the assignee up to September 7.

The roof was put on the cleaning house of the Grand Republic Mill Elevator at Superior, Wis., during the latter part of August. The cleaning machinery has all been put in and the elevator is now ready for business.

The J. D. Tobey hay and grain company has been incorporated at Chicago, Ill., to do a general hay, grain and elevator business. Capital stock, \$250,000; incorporators, J. D. Tobey, Victor D. L. Mudge and Wiles Tobey.

Allison & Van Epp's new grain warehouse and elevator at Brookings, S. D., is completed and in operation. Everything is new, and the warehouse is built on the latest plan, with an idea to convenience and strength.

Amended articles of incorporation of the Western Grain Company of Minneapolis, Minn., changing the name of the concern to the Minnesota & Western Grain Company, were filed August 16 with the secretary of state.

Nicholas Losselyong began excavating for the foundation of his grain elevator at Marquette, Mich., August 9. The building will be 64 feet front by 60 feet deep and 35 feet high. A feed mill will also be erected in connection.

F. A. Crane, until recently manager of the Farmers' Milling & Elevator Company at Berthoud, Colo., was arrested September 7, charged with appropriating \$3,000 belonging to the company. He gave bonds for his appearance.

An elevator is being built at Redwood Falls, Minn., by E. M. Walbridge. The building is located on the N. W. Ry. tracks and will be 24x24 feet and 30 feet high. When completed the elevator will have a capacity of 20,000 bushels.

The Winnebago Grain & Lumber Company at Winnebago Village, Ill., has been incorporated with a capital stock of \$20,000. Incorporators are John E. Compton, Robert Spottswood, Jr., Nathans F. Parsons and W. H. Randerson.

The Kemper Grain Company recently organized at Kansas City, Mo. It is composed of William T. Kemper, De Forest Piazek and Ben F. Paxton, all of Valley Falls, Kan., in which town and vicinity the company own three elevators.

The Exchange Commission Company at St. Louis, Mo., which formerly did a large business in grain reorganized September 5. The officers are: C. D. French, president; W. W. Cowen, secretary, and Schooling Chapline, treasurer.

The Porter Milling Company at Winona, Minn., and the Winona & Dakota Grain Company have consolidated. The former company own 27 and the latter 22 elevators. The new company will be able to handle 2,000,000 bushels of grain yearly.

Tarbell & Buffington, a grain firm of Minneapolis, Minn., have brought an action against the Farmers' Mutual Elevator Company of Polk county, O. It is charged that the plaintiff delivered 4,419 bushels of wheat at the company's warehouse and received warehouse receipts for them. The company neither

cashed those receipts nor will it deliver up the wheat, which is valued at \$2,070.44. The plaintiffs have secured judgment which can now be executed.

M. Byrne, a grain buyer at La Salle, Ill., made an assignment, August 25. The assets are \$63,137 including grain elevators at La Salle and Dimmick. The liabilities, mostly made up with accounts with farmers for grain, foot up \$41,344.

The Grant & Cole Grain Company, with a capital stock of \$5,000, filed articles of incorporation August 17 for the purpose of doing a general grain business at Kansas City, Mo. The incorporators are W. D. Grant, A. T. Cole and W. C. Cole.

Hubbard & Palmer of Mankato, Minn., have opened up elevators at Lake Crystal, Garden City, Vernon, Amboy, Elmore, Madelia, Brewster, Minn.; Sheldon, Ia.; Sioux Falls and Montrose, S. D. They expect to open up 26 more, making 36 in all.

The elevator companies doing business at Elbow Lake, Minn., will pay cash at Minneapolis on the day following the delivery of the wheat at the local station. The plan of issuing checks for wheat payable in thirty days has been abandoned.

The cotton seed oil mill at Velasco, Tex., has its machinery in perfect order and has commenced operations. The company is establishing warehouses at points up the Brazos and have in the field a corps of cotton seed and seed cotton buyers.

The grain brokerage firm of H. Max Held & Co. at New York, N. Y., has been dissolved owing to the death of H. Max Held. The business will be continued by Chas. E. Young and Walter R. Jenkins under the firm name of Young & Jenkins.

At the elevator of C. J. Miller & Co. at Swartz Creek, Mich., from 50 to 150 bushels of wheat are ground daily for feed. The farmers are dissatisfied with current prices and find it more profitable to feed their wheat than sell at present prices.

The "Northern Pacific Elevator" at Moorhead, Minn., has been leased by the North Dakota Milling Association, which will use it in connection with its mill there. The association expects to build an elevator nearer to the mill in the near future.

A commission has been issued to the Ninety-six Oil Mill Company at Ninety-six, S. C., for the operation of a cotton seed oil mill. The incorporators are E. M. Lipscomb, James H. Rice and G. H. Anderson. The maximum capital stock is placed at \$20,000.

The Peavey Elevator Company, of Minneapolis, Minn., has filed an amendment to its articles of incorporation raising the number of directors from three to five and changing the date of the annual meeting from July 25 to the first Monday in August.

The firm of J. R. Conway & Co. has been incorporated at Peoria, Ill., with a capital stock of \$4,000, for dealing in grain and provisions and carrying on a general commission business. Incorporators are James R. Conway, Frank E. Conway and William T. Irwin.

On the night of August 1 burglars blew open the safe in the grain warehouse of Armstrong, Squier & Co. at North East, Md. Before they could secure any money they were frightened off by two colored men who fired at them. The burglars returned the fire, but no one was injured.

The Wabash Elevator Company of Toledo, O., operating one elevator of 1,000,000 bushels, and another of 1,500,000 bushels capacity, are sending back to the factory the beams to all of their hopper scales, forty in number, and will have them fitted with the Demuth Check Beams.

Two years ago John H. Hardeback and George Keyton, farmers near Kokomo, Ind., stored 1,000 bushels of wheat. The price at that time was 98 cents per bushel, but they wanted \$1. Should they sell now after paying storage charges they would realize about 15 cents per bushel.

Articles of incorporation were filed Aug. 30 by the Farmers' Elevator Company, of St. Peter, Minn. The capital stock is \$15,000, and the incorporators are Alva Pettis, Kasota; S. H. Pettis, St. Peter; G. W. Studley, A. Wilfret, Cleveland; John Kendall, Lake Washington; S. B. Miner, Oshawa.

The new organization of the North Dakota Elevator Company has been effected, and Peavy & Co., of Minneapolis, Minn., are thought to be the managers. The new company will be called the Monarch Elevator Company, and will soon be open for business. All the old agents will probably be retained.

Joseph W. Taylor, trading as the Camden Grain Company at Camden, N. Y., made an assignment August 3 for the benefit of his creditors. The assets are placed at \$6,594.42, and the liabilities at \$10,456.94. Four thousand five hundred dollars of the latter amount are notes outstanding and not yet due.

M. J. Forbes, receiver of the Northern Pacific and Red River Valley Elevator Companies, has leased a number of the elevators belonging to the system in Western Minnesota and North Dakota. About 10 houses have been leased singly. The Victoria Elevator Company has secured the Dakota & Manitoba

branch, which contains 12 houses. James John & Co. have taken the Jamestown & Northern line, consisting of eight houses. The elevators at Arthur, Hunter, Blanchard, Mayville and Hatton have been leased to Gage & Andrews. George C. Howe of Duluth has secured the houses at Davenport and Wood.

Carrington & Co., grain dealers of Toledo, O., on Aug. 17 attached a carload of wheat on the C., H. & D. track at Toledo, on a claim of \$110 alleged to be past due. C. A. Jackson, the owner of the wheat, in turn brought suit against the C., H. & D. railroad to recover possession of the grain and \$50 damages.

The Middle Division Elevator Company of Chicago, Ill., which failed recently, have proposed the following mode of settlement to their creditors: They will pay one-fourth the amount of indebtedness in cash, one-fourth in six months, one-fourth in twelve months and the last one-fourth in eighteen months. A large number of farmers in Illinois had grain stored with the company.

Up to the last of August only two of the twenty warehouses in Minneapolis, Minn., had taken out licenses. These were the Interior No. 1, operated by Peavy & Co., and the St. Anthony and Dakota Elevator, operated by the company of that name. All of the big elevator companies, however, had either taken out licenses or signified their intention of doing so before September 1.

Work has commenced on the warehouse of Thos. McBath, at Watertown, S. D., which he is having converted into an elevator. The elevator proper will have a capacity of 20,000 to 30,000 bushels, and a portion of the warehouse, which will be used in connection, will make the combined capacity much greater. The new structure will be ready for handling wheat in a short time.

Barnes & Nicholls, a grain firm at Minneapolis, Minn., have dissolved partnership. G. S. Barnes and George S. Barnes, Jr. retiring. Nicholls & Taylor will be the style of the new firm, which is composed of John E. Nicholls, William L. Nicholls and Thomas N. Taylor. A branch will also be opened at Duluth, with J. M. McKindry as a partner, and the firm name will be known as McKindry & Nicholls.

The Northwestern Grain Company claims to have been defrauded of considerable money through Fred Swanson, a trusted agent, at Campbell, Minn. His alleged scheme for defrauding the company was to appropriate to his own use the money that had been remitted to him to pay for wheat. The alleged fraud was soon discovered, as the farmers began to complain when the money for their wheat was not forthcoming.

The St. Joseph Grain Company of St. Joseph, Mo., has brought suit against Rankin Bros. of Farnam, Neb., for \$600. A short time ago Rankin Bros. consigned four carloads of grain to the St. Joseph Grain Company. It is alleged that two of the cars were wrecked between the point of shipment and St. Joseph and a large portion of the grain lost. The St. Joseph Grain Company did not discover the loss until after the grain had been received and paid for. Then the company drew on Rankin Bros. for \$600, the amount the cars were alleged to have been short, but the latter firm refused to honor the draft, insisting that the grain company should recover from the railroad company. Considerable litigation may follow the suit.

OUR CARD BASKET

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

Henry Jennings of Boston.
C. Howes of S. Howes, Silver Creek, N. Y.
Joseph M. O'Shea, chief grain inspector, St. Louis, Mo.
Jas T. Kleiser, Lebanon, Ind., with Nordyke & Marmon Co.
W. W. Huntley of Huntley, Cranston & Hammond, Silver Creek, N. Y.
A. F. Shuler of Minneapolis, representing Huntley, Cranston & Hammond.
J. W. Taylor of Atlanta, Ga., representing the Stillwell-Bierce & Smith-Vaile Co.
H. L. Knight, superintendent E. H. Pease Manufacturing Company, Racine, Wis.
J. F. Traster of Leavenworth, Kan., representing the Case Manufacturing Company.

The total number of bushels of corn exported through New Orleans, La., to foreign ports from Sept. 1, 1892, to Aug. 31, 1893, was 4,782,692 bushels, compared with 6,921,143 bushels for the same period of 1891-2. The total number of bushels of wheat exported through New Orleans, La., to foreign ports from Sept. 1, 1892, to Aug. 31, 1893, was 15,161,068 bushels, compared with 14,017,506 bushels for the same period of 1891-2. The total number of bushels of oats exported through the same port during the same time was 48,000 bushels, as compared with none exported during the corresponding season of 1891-2.

PRESS COMMENT.

HOLDING WHEAT.

Grain buyers don't want to handle wheat at its present low price, and all urge farmers not to thresh for a full month yet. The wheat will, they claim, be in better condition, and if kept off the market until after the crop from warmer latitudes has been sold, prices are bound to come up. This has the ring of good sound hard sense. Wheat can't possibly go much lower, and it will certainly improve its quality to keep it in stack until after it has passed through the sweat.—*Special, Salem, S. D.*

THE PRICE OF WHEAT AND PRODUCTION.

Overproduction of wheat in the world has resulted in the lowest average prices since records have been kept. But it seems to us that a sure remedy of a shortened area will be adopted this autumn and next spring. Of course the short crop of money has aided in the depression of values, but we must consume our stocks to a lower aggregate before easy money can do much more than advance prices fictitiously. The decreased acreage devoted to wheat will undoubtedly occur abroad, as America will tire out the farmers of the old world.—*Toledo Market Report.*

THE MIDDLEMAN INDISPENSABLE.

There has never yet been a granger movement started either in the United States or Canada with the view of dispensing with the services of the middlemen that did not end disastrously to farmers. It is through the agency of middlemen that a healthy competition is kept up which insures the highest prices to producers. In fact, it has been proved too often that competition between middlemen has been too keen for their best interests, as in the present case of hay, to wit.—*Trade Bulletin, Montreal.*

INVOICES OF SHIPMENTS.

We want to impress upon the minds of shippers the advantages, or necessity, we may just as well say, because advantages should make it a necessity, of mailing invoices of shipments promptly at the time of shipment. Let the invoice show the date of shipment, the initial and car number, the number of bales and weight loaded in the car; also accompany the same with a description of the contents. If it is not all of a uniform grade, load that which is not up to grade in a part of the car by itself and so notify the party you are shipping to. By careful observing these points you enable the party you are shipping to to anticipate its arrival and have a place for it.—*Hay There.*

GRADING HAY.

It is frankly admitted that the grading of hay is one of the most important items pertaining to the trade, and has been the bone of more contention than any other item that has ever come to the surface. Why, because no two markets grade alike, neither do the shippers from the country grade it as it is graded in the city markets to which it is shipped. Neither do we find the grades in the same markets always alike. On a scant market No. 2 will pass muster as No. 1, while on a full market No. 1 will often find itself going as No. 2 and No. 3. This is enough in itself to destroy the knowledge that a shipper may be possessed of in the matter, and make him feel that the so-called grades are a delusion and a snare. The proper way and what the people want is a system that will make No. 1 hay No. 1 the year through, whether the market is firm or slack, the price high or low.—*Hay Trade Journal.*

DISCRIMINATION BY CARRIERS.

For many years it was held by all railway men, and it is even yet believed by some, that discrimination as between persons and places was not only not wrong, but most conducive to railway prosperity, as affording a means by which the bulk of the traffic could be most easily controlled. Also it was for many years held and it is still largely believed that the current relative adjustment of rates must be maintained irrespective of whether such maintenance involves a violation of the law or not; the excuse that unless such relation is maintained no business can be had, being relied upon as a sufficient justification for the infraction of the law. The prosperity of the community and which, so far as as railways can effect it, is best conserved by equal rates, is more important and in the end will be more profitable to any railroad than any system of preferential rates that can be invented; while the idea that the violation of the law by one road justifies a corresponding violation by another, or that an infraction at one point compels a corresponding deviation at another, is subversive alike of good morals, good railroading and good citizenship.—*Railway Review.*

Fires, Casualties, Etc.

A. J. Mays, dealer in grain at Austin, Tex., has been burned out.

The Minneapolis Brewing Company at Minneapolis, Minn., has suffered a loss by fire.

Weir & Weir's flax mill at St. Mary's, Ont., was burned August 8. Loss about \$3,000.

The storehouse of Touchburn & Preston, grain dealers at Bethany, Ont., has been burned.

The Forsyth Milling Company's large elevator and mill at Bowen's Mills, Mo., have been burned.

Thomas Cairnes of Portage la Prairie Man., suffered the loss of his brewery by fire on July 27. Loss \$15,000.

The elevator and mill at Reneck, Mo., burned recently, with a loss of \$55,000. A small insurance was carried.

Fire caused a loss of \$20,000 to the "Miner Elevator" at Cedar Rapids, Ia., September 8. It was partly insured.

A fire started in the grain elevator at Louisville, Ky., in the afternoon of August 24, but was quickly extinguished. Loss about \$100.

The "Farmers' Elevator" at Mulmine, Ill., was burned on the afternoon of September 1. It contained several thousand bushels of oats.

Fire destroyed the large elevator of the W. C. Fuhrer Milling Company at Mt. Vernon, Ind., September 10. The loss is \$100,000; partly insured.

The Big Four Elevator at Green Springs, O., was consumed by fire September 4. Sparks from a passing locomotive were the cause of the fire.

A tramp set fire to the grain bins of T. J. Bondurant, Thomas McMillan and others at Deland, Ill., on August 21. Loss will amount to \$5,000; no insurance.

Gebs' wheat elevator at Greensburg, Ind., collapsed August 4, allowing 15,000 bushels of grain to run into the streets. Mr. Gebs, the proprietor, had barely time to escape.

The elevator and mill at Jewett Mills, Wis., were burned August 27. They were operated under lease by J. D. Matteson. A hot box is the supposed cause of the fire. Loss about \$20,000.

The elevator belonging to the Pratt-Baxter Grain Company at Taylorsville, Ind., was burned the afternoon of September 1, together with 14,000 bushels of wheat. Loss \$25,000; insurance about \$15,000.

The "Oxford Elevator" and mill at Norwich, Ont., was burned on the morning of August 22. The plant was owned by Walker Harper & Co. The origin of the fire is unknown. Loss \$40,000; insurance \$22,000.

The elevator and mills at Salisbury, Mo., owned by the Salisbury Mill and Elevator Company, were destroyed by fire August 14. The total loss is \$40,000; insurance \$24,000. The property will be at once rebuilt.

The grain warehouse of D. Kesler & Sons of Cowden, Ill., was totally destroyed by fire the night of August 16. The building contained over 2,000 bushels of grain and some farm machinery. Loss \$4,000; insurance \$1,750.

The warehouse of Ray Bros., hay and grain company at St. Louis, Mo., was destroyed by fire on the night of September 9. The fire is thought to have been the work of an incendiary. Loss on stock is \$12,000; insurance \$6,000.

The Esten & Carpenter elevator at Lincoln, Ill., was burned at 11:30 o'clock on the night of August 13. The loss is only nominal, as the elevator has been idle for several years. The fire was of incendiary origin. Loss about \$10,000; no insurance.

Betts & Co.'s feed and grain warehouse at New Haven, Conn., was burned August 7. The building was owned by the Consolidated Railroad Company and was valued at \$1,000; insured. The destroyed stock was worth \$10,000 and is a total loss.

The elevator, known as the "Bently," at Dubuque, Ia., was burned in the afternoon of August 21. It had not been used for grain storage for several years. The original cost was \$11,000 and \$4,000 for machinery. The loss is partly covered by insurance.

Fire broke out in Patten, Jackson & Co.'s elevator at Carthage, S. D., at 4:30 P. M., September 9, and the entire building was in a moment a sheet of flame. The Carthage Warehouse Company's elevator soon caught fire and was also consumed. The loss of Patten, Jackson & Co. is about \$3,000 on the building and \$600 on the grain. Insurance \$2,300. The Carthage Warehouse Company's loss is \$4,500 on build-

ing and \$400 on grain. Insurance \$1,500. The Carthage Warehouse Company will commence rebuilding at once.

John Hull, a grain dealer of Douglas, Neb., accidentally shot himself recently while cleaning his revolver. The ball entered his right breast. The physicians probed for the ball but failed to find it. The chances for his recovery are very doubtful.

The large brick warehouse at Baltimore, Md., used as a broomcorn storage warehouse by R. C. Norman & Co., was burned at 6:30 o'clock P. M., August 21. The stock, valued at \$7,500, was damaged \$2,500, principally by water. The entire stock was fully insured.

Two mechanics were instantly killed in the new elevator near the "Victoria Mill" at Victoria, Mo., on August 30. They were working on a new staging, which, through their neglect to properly fasten it, tipped over and precipitated them to the floor 80 feet below.

The large broom corn shed of George Williams, near Rardin, Ill., caught fire on the morning of September 5 and were totally destroyed. The shed contained thirty tons of broom corn, valued at \$2,100. The fire is supposed to have been caused by traps. The total loss exceeds \$8,000. Insurance of only \$400 was carried.

The large warehouses for the storage of grain at Fonda, N. Y., was destroyed by fire August 23. The buildings were owned and occupied by D. A. Fonda & Co. of Fonda, N. Y., J. C. Hasbrook and George N. Reinhardt & Co. of New York, N. Y. Only small stocks of grain were on hand. Loss about \$3,000, fully covered by insurance.

The elevator of the Colorado Milling and Elevator Company at Denver, Colo., was burned August 14. There were in the elevator 60,000 bushels of wheat, 15,000 bushels of oats and 18,000 bushels of corn. It had a capacity of 150,000 bushels, but was not full. Total loss between \$250,000 and \$300,000. The insurance is about 75 per cent. of the loss.

John Whalen, a laborer employed in the new Armour grain elevator at Chicago, Ill., met death August 30, under an immense pile of wheat. He was working in a big wheat bin when suddenly the wheat began to cave in on him and he was buried beneath tons of grain. His fellow workmen went to his assistance and took him out, but he died shortly after being rescued.

The "Union Grain Elevator" at Louisville, Ky., was burned on the morning of August 31. The fire originated in the second story from an unknown cause. It was owned by Robert Parkinson and until recently had been occupied by Bullitt & Co. An investigation is being made, which seems liable to attach the blame of the fire to a group of small boys, who had been loitering in the vicinity. The loss is \$10,000, with an insurance of \$4,000.

The Columbus Elevator Company, composed of the firm of Deshler & Sinks at Columbus, O., lost their elevator by fire on the afternoon of August 21. The fire resulted from matches lighted by boys who were playing about the building. The elevator was a three-story structure, the first being of brick and the two upper floors of frame. This is the fourth time the building has been attacked by fire. The loss will amount to a few hundred dollars, on which there was no insurance.

The new grain elevator at South Byron, Wis., was entirely destroyed by fire on the afternoon of August 17. The fire is thought to have originated from friction in one of the main shaft bearings. The capacity of the building was 120,000 bushels and contained about 70,000 bushels of barley, which was in part saved. An interest in the elevator was owned by Bristol, Morgan & Co. of Oakfield, Wis. The building and contents, valued at about \$60,000, was fully covered by insurance.

The "Coatsworth Elevator" at Buffalo, N. Y., was totally destroyed by fire at 3 o'clock on the morning of August 15. The elevator had a capacity of 1,200,000 bushels and was valued at \$750,000. At the time of the fire it did not contain over 20,000 bushels of grain. The cause of the fire is unknown. The loss is estimated at \$800,000, fully covered by insurance. The "Coatsworth Elevator" belonged to the Coatsworth estate, and was built some years ago by the late Thomas Coatsworth. The "Kellogg Elevator," east of the Coatsworth, began blazing at one time, but beyond the breaking of windows and a little fire in the upper part of the tower, the building was not damaged.

The arrival at San Francisco, August 26, of the two over-due ships Celtic Chief and Harland, from Calcutta, caused a collapse in the grain bag market. The two vessels brought the aggregate of 3,000,000 bags. The price for immediate delivery, which had been up to 7½ cents, fell to 7¼, but efforts were made to sell those on board the Harland, deliverable next week, when the vessel discharges, at 6½ cents. Lower prices are expected.

WATERWAYS

A cargo of wheat and corn dispatched from Baltimore August 8 consisted of 178,000 bushels, the largest that ever left that port.

Detention is a ruling feature these times at all lake ports, and owners are in a dilemma to know whether to insist upon demurrage being paid or congratulate the shippers for delaying their tonnage.

According to a report from Capt. W. L. Marshall received at the War Department recently, operations on the Hennepin Canal on the eastern and western sections were continued during July and considerable progress made.

Work on the new canal at Sault Ste. Marie is progressing favorably. The canal lock will be finished early in 1896. The dredging of approaches that cannot be done until the lock is complete, in the same year, so the work will be ready for vessels that year. The stonework of the lock will be completed this fall.

Ocean rates have become quite weak very suddenly and ports are making extra inducements to get spot business. The tariff sheets which are sent out have about the same quotations, but much lower rates are made by wire and where traffic is not drawn through these inducements bids are urgently solicited from shippers.

Smith, Hammond & Co., Baltimore grain merchants, recently shipped from Newport News, Va., what is said to be the largest single cargo of wheat ever sent away from an Atlantic seaport. The cargo consisted of 168,000 bushels. It will go to Antwerp on the steamship Netherby Hall and the firm will receive gold in payment for the produce.

At a recent evening's meeting of the Chamber of Commerce at Seattle, Wash., Geo. W. Bell, a pseudo orator from South Bend, put his brazen clapper in motion and announced a bright new scheme which the wheel in his head had evolved, for the carrying through of the Nicaragua Canal project. The American people will profit by the experience of the French people with the Panama Canal.

A singular condition exists at present as to the California grain fleet. Every vessel cleared prior to May 1 has arrived out and not one of the subsequent clearings has been reported. One month's fleet never all gets to its destination before some of the following month's fleet are reported. This, however, is the case at present and will cause a light delivery of Pacific coast grain to arrive at English ports during the next sixty days.

Senator Chandler of New Hampshire recently offered in the Senate a resolution which was sent to the Committee on Commerce, instructing that committee to inquire into the expediency of the construction in the near future by the aid of the government of an interior coast line of waterworks across the head of the peninsula of Florida, along the coast from Florida to Hampton Roads, between Chesapeake Bay and Delaware Bay and by Cape Cod, for the purpose of securing commercial and military advantages. It has been a question for many years as to whether some means could not be devised to overcome the dangers to commerce encountered by ships voyaging along the Atlantic Coast and particularly in these neighborhoods. It so happens in favor of Mr. Chandler's scheme that from Chesapeake Bay to Florida there already exists a vast system of saltwater sounds which can, at a comparatively small cost, be connected by several short canals and thereby afford the desired navigation in short order.

OBITUARY

North Storms of the firm of Storms, Worth & Co., dealers in seeds and grain at Evansville, Ind., is dead.

H. Max Held of the grain brokerage firm of H. Max Held & Co., at New York, N. Y., died recently.

The body of Alexander Frazier, a miller and grain broker on "Change at St. Louis, Mo., was found floating in the lake at Ramona Park, September 10.

Mathew C. Myers of Brooklyn, N. Y., died August 22. Mr. Myers was long and favorably known with the grain jobbing trade of New York City and was an old member of the Produce Exchange.

Timothy seed aggregating 105,512 pounds, valued at \$5,124, was exported in July, against 3,333 pounds, valued at \$100, in July, 1892. During the seven months ending with July 5,326,864 pounds, valued at \$129,923, were exported, against 1,604,416 pounds, valued at \$220,654, imported during the corresponding months of 1892.

ITEMS FROM ABROAD

Hungary, it is officially estimated, has a surplus this season of 5,500,000 quarters of wheat, of which Austria will require 4,700,000 quarters, leaving only 800,000 quarters for foreign export.

The Italian Minister of Agriculture estimates the oat crop of Italy to have yielded this year 2,200,000 quarters of 8 bushels each, against 2,000,000 quarters in 1892, and 2,400,000 quarters in 1891.

French customs officials recently discovered that large quantities of corn and grits had been imported as grain refuse and bone dust, thus defrauding the government out of large sums in duties.

The annual grain fair in Vienna, Austria, was opened August 28. In the reading of the official report the wheat yield of India was placed 2,236,000 tons, against 5,440 tons for the year preceding.

The wheat crop of France is estimated at 33,550,000 quarters. This compares with former years as follows: 1892, 39,000,000 quarters; 1891, 26,700,000 quarters; 1890, 41,000,000 quarters of 8 bushels each.

The imports of wheat into Belgium during the month of June amounted to 659,000 quarters. In the same period Holland imported 389,000 quarters, making an aggregate for the low countries of 1,000,000 quarters.

The Indian shipments of wheat from April 1 to August 26, 1893, amounted to 1,444,000 quarters of 8 bushels each, as compared with 2,763,000 quarters for the same period of 1892, and 4,106,000 quarters for the period of 1891.

The total number of quarters of 480 pounds each of wheat and flour shipped from Australia and New Zealand from January 1 to August 26 amounted to 1,022,000. The number of quarters shipped in 1892 was 597,000 as compared with 1,186,000 quarters shipped in 1891.

During the month of June the imports into Spain included 176,000 quarters of wheat and 6,000 sacks of flour. For the eleven months ending June 30 the net imports of wheat and flour together amounted to 1,580,000 quarters, compared with 280,000 quarters for the corresponding period of 1891-92.

During July Belgium imported 670,000 quarters wheat and 45,000 sacks of flour; the exports included 205,000 quarters wheat and 15,000 sacks flour. The total net import of wheat and flour for the cereal year ending 31st July last amounted to 3,300,000 quarters, which was equal to that imported during the previous season.

Germany imported 310,000 quarters of wheat, 118,000 quarters of rye, 207,000 quarters of maize and 333,000 quarters of barley during the month of June. The import of wheat during the eleven months ending with June was 2,720,000 quarters, compared with 5,570,000 quarters for the same period of the season preceding.

The Italian wheat crop according to late advices from Rome is estimated at 14,480,000 quarters of 8 bushels each. This in comparison with 14,030,000 quarters in 1892 is in excess of 450,000 quarters, but a deficiency compared with 1891 of 2,710,000 quarters, when Italy imported 2,000,000 quarters at much higher prices than are now current.

Italy's import of wheat during July is officially returned as 438,000 quarters of 8 bushels each, and the total for the last cereal year as 4,800,000 quarters, compared with 1,900,000 quarters in 1891-92. This must be understood to represent the quantities delivered to consumption only, the arrivals probably totaling a somewhat bigger figure.

During the month of July Sweden imported 69,000 quarters of 8 bushels each, wheat and 28,000 sacks flour. The imports of wheat and flour counted together during the cereal year 1892-93 amounted to 771,000 quarters, against 600,000 quarters in the previous season; the import of rye was also about 100,000 quarters heavier in 1892-93. Of oats 1,500,000 quarters were exported during last season, against 400,000 quarters in the previous cereal year.

The agricultural returns of Great Britain are issued to-day, August 23, and confirm the worst apprehensions of the past few months. The wheat area has fallen a further 15 per cent. (14.5), and if Irish farmers have grown about the same quantity of wheat as usual the total area for the United Kingdom will be 1,975,000, or including the islands, in round numbers barely two million acres. Barley has been grown on a slightly increased area, and oats on one considerably larger than last year, viz., 6 per cent. The total area under the chief cereals and potatoes has decreased 105,000 acres, or 1 1/2 per cent. At 27 bushels per acre the total crop this year would work out at 6 1/2 million quarters, of which probably less than 6 million would be delivered to mills—10 per cent. to 20 per cent. be-

ing used on the farm seed, etc. At present prices it is likely a great quantity of wheat will be used elsewhere than in the mill, and the gross consumption of native and foreign breadstuffs may run close up to 29,000,000 quarters, in which case the UK will have to import about 23,000,000 quarters (184,000,000 bushels) from abroad.—*Corn Trade News, Liverpool.*

Wheat aggregating 767,000 quarters was shipped from the Russian and Black Sea ports from August 1 to August 26, compared with 960,000 quarters shipped during the same period of the previous season. Maize aggregating 7,913,000 quarters of 480 pounds each was shipped from Nov. 1, 1892, to Aug. 26, 1893, against 3,389,000 quarters for the same period of the previous season. Barley amounting to 675,000 quarters of 480 pounds each was shipped from August 1 to August 26, against 505,000 quarters shipped during the same period of the previous season.

Germany's purchase of Indian corn from America has increased so rapidly that the foreign office has considered a plan which will enable the Prussian Agricultural Union to obtain its supplies directly from the producers in the Western states, thus doing away with the middlemen and obtaining lower prices for the consumers. The Minister of Foreign Affairs has asked officially what help the Washington government will give him in carrying out such a plan, and the United States Consul at Berlin has written to Washington that the time is ripe to form a corn syndicate and gain a lasting hold on the German market.

The grain tariff war which has been inaugurated by Russia against Germany, it is generally held now, will hurt Russia most. It seems that Russia, in applying its maximum tariff on German products, was mainly influenced by the unfavorable early reports regarding the harvest prospects in Germany. These reports, it is said, led Russia to believe that Germany, desiring Russian grain, etc., would not retaliate for the imposition by Russia of the highest tariff on imported German products. In this belief, however, it was disappointed, as the prompt action of the Federal Council in raising the German tariff on Russian products 50 per cent. shows that Germany is not so dependent upon Russian cereals as the latter country appears to think. Germany's source of grain supply also is no longer confined to Russia. The returns for 1892 and the early part of 1893 show a great decrease in the quantity of grain imported into Germany from Russia.

LATE PATENTS

Issued on July 25, 1893.

BALING PRESS.—Edmund M. Ivens, New Orleans, La. (No model.) No. 502,192. Serial No. 392,240. Filed May 9, 1891.

CONVEYOR BELT.—Sigmund Jacoby, New York, N. Y. (No model.) No. 502,041. Serial No. 459,761. Filed Jan. 26, 1893.

FLAX DRESSING MACHINE.—Charles H. Norton, Detroit, Mich., assignor to Arthur Pack and Rena A. Fraser, Alpena, Mich. (No model.) No. 502,010. Serial No. 418,418. Filed Jan. 18, 1892.

GAS ENGINE.—George E. Hoyt, San Francisco, Cal., assignor to Palmer & Rey, same place. (No model.) No. 502,255. Serial No. 396,936. Filed June 20, 1891.

AUTOMATIC WEIGHING AND RECORDING SCALE.—Walter F. Burns, San Francisco, Cal. (No model.) No. 502,222. Serial No. 464,039. Filed Feb. 28, 1893.

Issued on August 1, 1893.

CONVEYOR.—Charles S. Schenck, New York, N. Y. (No model.) No. 502,588. Serial No. 449,215. Filed Oct. 18, 1892.

CARBONIC ACID OR OTHER GAS ENGINE.—Adam Danner and George Rothenbücher, New York, N. Y. (No model.) No. 502,430. Serial No. 462,268. Filed Feb. 14, 1893.

Issued on August 8, 1893.

BALING PRESS.—George Schubert, Walnut, Tex. (No model.) No. 502,833. Serial No. 451,902. Filed Nov. 14, 1892.

POCKET OR BIN FOR STORAGE OF COAL, GRAIN, ETC.—Thomas E. Murray, Albany, N. Y., assignor of one-half to William McEwan, same place. (No model.) No. 502,097. Serial No. 454,367. Filed Dec. 7, 1892.

HAY PRESS.—Armin Witte, Brenham, Tex. (No model.) No. 502,942. Serial No. 459,857. Filed Jan. 26, 1893.

WHEAT SCOURER.—John D. Sheaffer, Avilla, Ind. (No model.) No. 502,915. Serial No. 272,325. Filed April 30, 1888.

Issued on August 22, 1893.

BAG HOLDER.—James Travis, Jr., Cascade, Mont. (No model.) No. 503,627. Serial No. 462,895. Filed Feb. 18, 1893.

ENDLESS CHAIN CONVEYOR.—George W. McCaslin, Hoboken, N. J. (No model.) No. 503,870. Serial No. 469,622. Filed April 8, 1893.

ELEVATOR.—William F. Austin, Albany, N. Y. (No model.) No. 503,781. Serial No. 467,024. Filed March 21, 1893.

GRAIN METER.—Walter Howard, Washington, D. C. (No model.) No. 503,746. Serial No. 466,489. Filed March 17, 1893.

HORSE POWER.—Anton Aker, Helena, assignor of one-half to Nikolaus Wagner and Jacob Wagner, Rimini, Mont. (No model.) No. 503,640. Serial No. 445,922. Filed Sept. 14, 1892.

REGISTER FOR GRAIN MEASURES.—Benjamin F. Haley, Beatty, O. (No model.) No. 503,719. Serial No. 446,444. Filed Sept. 21, 1892.

PERSONAL

Chas. Kayser will be manager of the new farmers' elevator at St. Peter, Minn.

J. H. Evans has been engaged by the Eagle Roller Mill Company to buy wheat and take charge of their elevator at Ferney, S. D.

John W. Gray of Joliet, Ill., was appointed grain inspector by Governor Altgeld August 22, vice Ben F. King, whose term had expired.

Halvor Eielson of Portland, N. D., has been engaged by the Andrew & Gage Elevator Company to take charge of their elevator at Davenport, N. D.

John Nicolin of Jordan, Minn., will buy wheat at that place for the firm of L. Christian & Co. of Minneapolis, Minn. Mr. Nicolin formerly traveled for the Willford & Northway Manufacturing Company.

George M. Giltinan, state weighmaster at St. Paul, Minn., tendered his resignation to Chief Inspector Clausen of the state grain department August 16, and will enter upon the duties of state deputy auditor. Inspector Clausen has not yet decided who will be his successor.

The announcement is made of the retirement of C. T. Peavy from the firm of F. H. Peavy & Co. This is a notable change, as the firm is one of the largest of the great shipping firms. Mr. Peavy has also resigned from the presidency of the Midland Elevator Company of Kansas City, and will be succeeded by C. T. Michener.

THE MARKETS.

We will be pleased to publish under this head short reviews of the conditions ruling in the different markets. Copy must reach us by the morning of the 14th of each month.

HAY AT CHICAGO.—M. M. Freeman & Co. report receipts for September 11, of 1,412 tons; shipments 248 ton. **TIMOTHY.** Receipts large; market easy and quiet; demand light. No. 1 \$10@11; No. 2 \$9@9 1/4; mixed \$8@9. **PRAIRIE.**—Offerings again heavy, and arrivals do not find ready sale in consequence; market dull and easy. Choice Kansas Upland \$8@8 1/4; choice Iowa Upland \$7 1/4@8; good Iowa or Kansas Upland \$7@7 1/4; good feeding hay \$6@6 1/2. **STRAW.**—Arrivals were liberal; market rules easy and quiet. Rye \$6 1/2; oats and wheat \$4 1/2@5 1/4. Hay and straw is coming forward too freely, and should these heavy receipts continue further decline in prices would result.

HAY AT NEW YORK.—Theo. P. Huffman & Co., New York, N. Y., writing under date of September 1, report the receipts of hay for the past week considerably larger than the previous week, owing to the fact, no doubt, that many shippers are now starting in on the new crop, and are anxious to market their goods as fast as possible. The majority of the arrivals are of the new crop, which are very good in quality and are being accepted by buyers at prices almost equal to those that are asked for old goods. In fact there is little difference on most of the grades. We look for a good trade within a short time, as the large number of horses that have been in the country during the summer months will have returned, and there is every appearance of easier money matters—all of which will make healthy conditions for the hay trade. The export business has reached the end of its rope, and we are just in receipt of a cable from our representative in Liverpool to the effect that the market is weaker, and \$22 for a ton of 2,240 pounds, which reduced to an American ton is \$19.36. The present freight rate is \$7.50. We are obtaining the following prices to-day for new hay: Prime, large bales, 90@95c; No. 1, large bales, 85@90c; No. 2, large bales, 80c; No. 3, large bales, 70@75c; clover mixed, large bales, 70c; clover, large bales, 60c. Prime, perpetual bales, 85@90c; No. 1 perpetual bales, 80@85c; No. 2 perpetual bales, 75@80c; No. 3 perpetual bales, 70@75c. Clover mixed, perpetual bales, 70@75c. Clover, perpetual bales, 55@60c. **STRAW.**—Prime rye 60@65c; oats 35@40c. The New York Produce Exchange have this day put into effect new rules for grading. We advise purchases on grades as established by the Produce Exchange.

Latest Decisions.

Injury to Goods by Carrier.

Where goods are shown to have been in good condition when delivered to a carrier for transportation, but are damaged when they reach their destination, a prima facie case is established that they were injured by the negligence of the carrier, and the precise nature of the negligence need not be shown.—*Bowden vs. Fargo, Monroe County Court, 22 N. Y. Supp. 889.*

What Constitutes Absolute Sale.

Where the purchaser of a threshing machine, at the time of the delivery of the machine, gives the seller his note for the purchase price and mortgages on the machine and other property to secure the note, containing covenants to pay the deficiency should there be one, on their foreclosure, such sale is an absolute one, with a mortgage back, even though the note provided that the title was to remain in the seller until the payment was made.—*Aultman & Co. vs. Silha, Supreme Court of Wisconsin, 55 N. W. Rep. 711.*

Liability for Delay in Delivery of Freight.

A common carrier is not liable for delay in delivery of freight where such delay resulted from causes beyond the carrier's control, and carrier exercised due care for the protection and preservation of the property. Where such delay was caused by atmospheric conditions, rendering the telegraph wires unavailable, so that the employees in charge of the train could not receive orders, it was beyond the carrier's control and excusable.—*International & G. N. R. Co. vs. Hynes, Court of Civil Appeals of Texas, March 8, 1893, 21 S. W. Rep. 622.*

Liability of Carrier for Goods Lost in Transit.

In an action against the last of several connecting carriers, to recover for goods shipped over the lines of such carriers by through bill of lading, and lost, the burden is on the carrier to show that such loss did not occur on its line, and the presumption is not rebutted by showing that its preceding carrier loaded such goods into one of its sealed cars, which had no end windows or other means of entering except through the doors where it is not shown that the seal remained as put on.—*Faison vs. Alabama and V. R. Co., Supreme Court of Mississippi, 13 So. Rep. 37.*

What Constitutes Conversion.

The fact that one permitted certain wheat in controversy in a replevin suit to be stored in his barn by the owner who afterward carried it away and sold it, did not constitute conversion by him, where it was subsequently awarded to a claimant, where he received no consideration, and had no knowledge of the controversy concerning its ownership. Where the defendant insists that he is entitled to a judgment against all the defendants or none, and he is not entitled to judgment against some of them, he waives his right to the determination of the question as to whether he is entitled to judgment against any.—*Valentine vs. Duff, Appellate Court of Ind. 33 N. E. Rep. 529.*

Policy on Cargo of Corn—Risk.

A cargo of maize was insured from San Nicolas and Buenos Ayres to a port in Europe; the subject-matter of the insurance was described in the policy to be "26,910 bags of maize from San Nicolas, £6,065 at 1 per cent.; 8,299 bags of maize from Buenos Ayres, £1,875 at seven-eighths per cent.," and the policy contained a further statement that by agreement the goods were valued at "£7,940 (included £1,361 6s. 6d. for advance on freight)." The policy covered all risks in craft, and contained a warranty against particular average, unless the ship or craft should be stranded. The 26,910 bags were shipped at San Nicolas, but while on her way down the river to Buenos Ayres the ship was stranded; at that time the 8,299 bags were in lighters in Buenos Ayres roads awaiting her arrival. Ultimately the ship was got off and proceeded to Buenos Ayres, where she was surveyed and found to be seaworthy. The cargo from San Nicolas (which had been taken out) was reshipped, the 8,299 bags waiting in the lighters were put on board, and the ship proceeded on her voyage to Europe, in the course of which a large part of the cargo was damaged by water owing to perils of the seas. It was admitted that a claim for particular average in consequence of the stranding arose in respect to the bags shipped at San Nicolas, but the assured claimed to be entitled to recover in respect to the bags shipped at Buenos Ayres; they further contended that the loss should be calculated upon the full value of £7,940 without any deduction in respect of freight advanced. Held (1) that, as at the time of stranding of the ship the 8,299 bags were only at risk in the craft, and not a risk in the ship, the warranty attached, and the assured were not entitled to recover a particular aver-

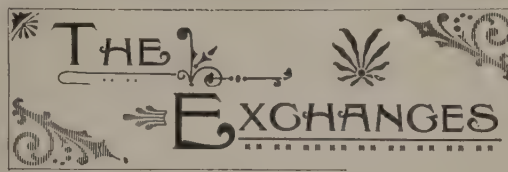
age loss in respect of such bags; and (2) that the policy was to be treated as one policy upon valued goods, and not as a policy by which advanced freight was separately insured, and that therefore the particular average loss should be calculated upon the full amount of £7,940.—*The Thames and Mersey Marine Ins. Co., Ltd., v. Pitts et al (Eng. C. A., Q. B. D.), 1 Queen's Bench Division, Law Reports (April 1, 1893), p. 476.*

What Constitutes a Sale.

Where the owner of some wheat wrote to a party that if he would pay a stated price for wheat of a certain grade he would send him a sample, and received in reply a telegram stating that if the wheat was good he would take five cars at the price named, and on the same day a letter confirming the purchase of that amount, the transaction constituted a contract for the sale and delivery of five cars of wheat at the price named.—*Eckert vs. Schoch, Supreme Court of Pennsylvania, 26 At. Rep. 654.*

Authority of Agents to Make Admissions.

The Supreme Court of South Dakota recently decided in the case of La Rue vs. St. Anthony and Dakota Elevator Company, that when an agent of an elevator company has purchased wheat, and received it into the elevator, where it is mingled with other wheat, his statements, declarations or admissions made subsequently, to a third person, as to the party from whom said wheat was purchased, and the parties who delivered the same, and the number of bushels delivered, are not admissible in evidence to bind his principal, in the absence of evidence that he was specially authorized to make such statements or admissions, or evidence of a general custom that such agents possessed such authority.



The Superior Board of Trade at Superior, Wis., will establish a sample market.

Chicago Board of Trade memberships are quotable at \$825 to \$850. Memberships in the New York Produce Exchange are quotable at \$550.

B. P. Hutchinson, familiarly known as "Old Hutch," has sold his membership in the Chicago Board of Trade. The certificate was issued to him twenty-six years ago.

The names of B. P. Hutchinson, "Deacon" S. V. White and Moses Frayley appeared recently on the "membership" blackboard on the Board of Trade, Chicago, Ill., for sale or transfer.

The directors of the Superior Board of Trade have opened up an office to be used for the purpose of displaying samples of wheat. The millers have signified their intention of buying all their wheat in Superior.

Gov. Altgeld's new committee of appeals is not generally liked by dealers on the Chicago Board of Trade. The prominent ones say that the trade will be demoralized by inexperienced judges. At a session recently held the entire trade showed their interest by electing a committee from among their strongest members to meet the warehouse commissioners. This committee held a preliminary meeting and formulated the following articles to demand when they should get a hearing before the state warehouse board: 1. That so far as possible the Board of Trade would like to co-operate with the commissioners in making selections vital to the trade. 2. That if possible with their dignity and judgment that T. H. Foster be retained at the head of the appeals committee. 3. That the selection of track and other inspectors be made by experienced officials not connected with this committee, which is the Court of Appeals, on all disputes over inspection.

To-morrow is the 10th of September. It is the sixteenth anniversary of our election to the office of secretary of this Exchange, and we feel justified in reproducing a little of history. In 1876 this Exchange was organized out of the old Board of Trade. In 1877 the foundations of the Exchange Building were commenced and the building was completed January, 1878. It was about the most successful and profitable structure ever built in the West. Without entering into details, it may be said that during eleven years the building paid large dividends. From its rental and other sources, the original shares of \$250 each were sold in 1889 to a new corporation of members at \$2,500 each. Removal and death have wrought great changes in the personnel of the Exchange. The great reaper has been busy. On the rolls there are left but four old gentlemen, including the secretary, and the latter is the veteran. Some one may be called upon to write his obituary before September 10 comes again. He believes he is ready to go now, but is not in the

least hurry about it. To those of us who are left the leading object of life, old and young, in all its grades, should be, to shape them so that they shall express the intentions of the Creator in breathing into us this life, and that at the end we may know we have not lived in vain. Artemus Ward said he would rather live in Perryburg than live in vain.—*Dentson B Smith, in the Toledo Market Report.*

VALUABLE BOOKS FOR GRAIN DEALERS.

The following standard works will be sent, postage paid, on receipt of prices given:

ROBINSON'S TELEGRAPH CIPHER.—The publishers have recently revised this excellent work, and we are now prepared to supply the trade. Cloth binding, \$1.50; leather, \$2.00.

WEIGH BOOKS.—Containing 125 perforated leaves with four weigh tickets and four stubs to each leaf, well printed upon good paper. The books are well bound. Copies will be mailed to any address for \$1.00.

CLARK'S VEST-POCKET GRAIN TABLES.—A very useful and handy little book for grain buyers; to be used in reducing to bushels any quantity of grain or seeds up to 100,000 pounds. Size 2½ by 8½ inches, 16 pages. Leatherette, \$1.50.

KINGSLEY'S DIRECTORY is the only complete work containing the name and address of every firm engaged in the following lines of business: Milling, grain, flour and feed, hay and straw, butter and eggs, fruit and produce, malting, brewing, distilling and poultry. Over 500 pages, octavo, substantially bound in cloth. Indispensable to those who wish to reach the lines of business named above. Price, \$3.50.

TELEGRAPH CIPHER AND DIRECTORY TO NEW ENGLAND TRADE.—A new guide to carload buyers of grain throughout New England. A list of those engaged in the grain, feed and flour trade. Western grain shippers and millers wishing to do business in this territory will find this directory invaluable. The telegraph cipher has met with favor and is highly recommended by users. In fact the code part of the book is considered by many shippers superior to any other in use. It is modern and practical, a great money saver and will prevent mistakes. Nicely bound in leather, \$3.00.

POUNDS TO BUSHEL.—These tables which show the number of bushels in any quantity from 20,000 to 70,000 pounds were compiled for the Chicago Grain Inspection Department. They are well printed on good paper and conveniently arranged for quickly finding the number of bushels in a carload. Each book contains ten leaves and each leaf is indexed at margin and printed on one side only. Each book is neatly bound in cloth. They will save clerks much labor and prevent errors in reduction. Price for "OATS," \$1.00; "BARLEY," \$1.00; "CORN AND RYE," \$1.00. The set, \$3.50.

GRAIN DEALERS' AND SHIPPERS' GAZETTEER.—A new publication containing the grain inspection rules for the states of Illinois, Wisconsin, Minnesota, Michigan, Ohio and Missouri, and a complete list of the names of grain dealers and shippers on twenty-five railroads which penetrate the principal grain growing territory of the country. The names were collected recently by the aid of the railroad companies, so the names of no retired firms are given, making it reliable and by far the best book of the kind published. It is well bound and contains 370 pages. Price, \$3.00.

DAVIS GRAIN TABLES.—These tables give the value of any number of bushels of produce weighing 60 pounds to the bushel from 25 cents to \$1.25 per bushel, and the value of any produce weighing 32, 48 and 56 pounds to the bushel at 15 cents to \$1.50. The book also contains Davis' Dockage Table, which gives the amount to dock any load of wheat up to 600 bushels at 1½ to 5 pounds' dockage. The book contains 219 pages of tables, printed on good paper, with large type, and well bound in cloth. The book is a new publication, and the arrangement of the tables is much more convenient than in some of the old publications. Price, \$1.25.

CLARK'S GRAIN TABLES.—This work is published in several different forms, for use in different lines of business. In these tables pounds are reduced to bushels, so that a buyer can quickly determine the correct number of bushels in a load without doing any figuring. Their use effects a saving every day of more than time enough to pay for them. The edition intended principally for reducing team scale weights to bushels contains nine tables, and is bound in paper. Price 50 cents. This will be found invaluable to country buyers. A new edition, intended for shippers and commission merchants, reduces any quantity up to 64,000 pounds to bushels. It contains 16 tables, and is neatly bound in cloth. Price, \$1.50.

For any of the above, address
MITCHELL BROS. CO., 184 and 186 Dearborn street, Chicago, Ill.

A GOLDEN OPPORTUNITY AT MONTREAL.

There never was a better opportunity for starting a new floating grain elevator company in Montreal than at present, as the Montreal Elevating Company, which has a monopoly of the trade, is rolling in profits at an unprecedented rate, so much so that it paid an interim dividend not long ago of 12 per cent. One of our merchants stated a few days ago that if a new grain elevating company were to start in this city it could earn a handsome dividend between now and the close of navigation, and the old company would still be able to pay its shareholders a big interest on their capital. Consider, for one moment, in these days of severe competition, a company paying an interim dividend of 12 per cent.; but of course in this case the Montreal Elevating Company has a complete monopoly of the business, and is coining sufficient money to support two other companies with ease. The great wonder is that capital has not been subscribed long ago for the purpose of forming a rival concern, which as soon as its elevators were ready for work would have all the grain they could elevate at \$5 per 1,000 bushels, or from \$50 to \$250 per barge load as to size. It may be urged by the shareholders of the present rich corporation that an opposition company did start a number of years ago. That is true, but as everyone knows, it had not fair play, owing to the obstacles thrust in its way by the arbitrary conduct of the old Harbor Board, some of whose members were shareholders in the Montreal Elevating Company. The consequence was that the St. Lawrence Company's elevators were handicapped, and the present concern bought out the former and silenced all opposition. There need be no fear, however, of a new company meeting with the obstacles which beset the St. Lawrence Company, as such arbitrary opposition that was then brought to bear upon it would not be tolerated for one moment; in fact, a repetition of the means resorted to in order to prevent the St. Lawrence elevators coming alongside ships at the time agreed upon would never be attempted again. We repeat that a more golden opportunity for capitalists to invest in a few grain elevators in the harbor of Montreal and secure good paying dividends, never before presented itself.—*Trade Bulletin, Montreal.*

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY.

General offices: 160 and 172 Adams street, Chicago. Industrial Department.

The Chicago, Milwaukee & St. Paul Railway Company's 6,150 miles of road traverses a vast territory, rich in all the resources that insure industrial success.

The industrial department is conversant with the iron, coal, lumber and tanbark, the water power (both river and artesian) for factory and electric power purposes, the markets, the transportation and financial facilities, and other interests on the line pertaining to industrial development, and disseminates information concerning same.

A number of new factories have been induced to locate—largely through the instrumentality of this company—at enterprising towns on its lines.

As the interest of the company is to secure the location of industries at places where the surroundings will insure their permanent success, the information furnished a particular industry is pertinent and reliable.

In the Eastern states, and in other parts of the world, factories are so congested and distant from the actual market as to result in fierce and destructive competition. That the West is taking a place as one of the great manufacturing territories of the world is forcibly impressing itself upon discerning and enterprising manufacturers. Steps should be taken by such while the field is as yet not fully covered, and while inducements are still being offered to locate in the West.

Individuals or companies wishing to embark capital in Western industry can find a profitable field.

For particulars relative to industrial advantages on the line, address

LUIS JACKSON,

Industrial Commissioner,

C., M. & St. P. Ry., 160 Adams street, Chicago, Ill.

IMPORTS AND EXPORTS OF FOREIGN BREADSTUFFS.

The value of the breadstuffs imported during July was \$86,119, against \$116,287 for July, 1892. During the seven months ending with July the value of the imports was \$1,093,431, against \$1,556,818 for the seven months ending with July, 1892.

Three bushels of barley were imported in July, against 5,746 bushels imported in July, 1892. During the seven months ending with July 773,705 bushels were imported, against 894,617 bushels imported during the seven months ending with July, 1892. Corn amounting to 1,507 bushels was imported during the same months ending with July, compared with 873 bushels for the same period of 1892. Oats amounting to 16,443 bushels were imported during the

seven months ending with July, against 12,464 bushels imported during the same period of 1892.

Oatmeal aggregating 240,390 pounds was imported in the seven months ending with July, against 238,727 pounds for the corresponding period of 1892. Rye amounting to 8,455 bushels was imported during the seven months ending with July, against 10 bushels imported during the corresponding months of 1892.

Wheat amounting to 302,531 bushels was imported during the seven months ending with July, against 978,618 bushels imported during the corresponding months of 1892. Wheat flour aggregating 175 barrels was imported during the seven months ending with July, against 366 barrels imported during the corresponding months of 1892.

The total value of foreign breadstuffs exported during the month of July was \$427, against \$109,874 exported in July, 1892. The total value for the seven months ending with July was \$169,217, against \$1,228,122 for the corresponding months of 1892. The exports of barley amounted to 28,983 bushels during the seven months ending with July, against 81,505 bushels exported in the same period of 1892. There were no oats exported during the seven months ending with July, compared with 3,073 bushels exported during the corresponding months of 1892.

The exports of oatmeal amounted to 35,900 pounds during the seven months ending with July, and none was exported during the seven months ending with July, 1892. No foreign grown rye was exported during the seven months ending with July, compared with 4,175 bushels exported during the same period of 1892. Wheat amounting to 197,177 bushels was exported during the seven months ending with July, against 1,594,731 bushels exported during the corresponding period of 1892.

B. & O.'S NEW THROUGH LINE.

PREPARING FOR THE IMMENSE TRAFFIC INCIDENT TO THE WORLD'S FAIR.

The management of the Baltimore & Ohio Railroad is preparing for an immense business in 1893, while the World's Fair is open in Chicago. The terminals at Chicago are capable of accommodating a much heavier traffic than is now being done, and important changes are being arranged for the handling of very heavy freight and passenger business to the West from New York, Philadelphia and Baltimore. New equipment for largely increased passenger business and an extensive stock of freight cars have been ordered. The various roads of the system will be improved by straightened lines, reduced grades, extra side tracks and interlocking switches. The new line between Chicago Junction and Akron has shortened the distance between Chicago and tidewater twenty-five miles, and between Pittsburg and Chicago fifty-eight miles.

The distance between Chicago and Pittsburg and Chicago and Cleveland by the construction of the Akron line and the acquisition of the Pittsburg & Western line and the Valley Railroad of Ohio is about the same as via the Lake Shore from Cleveland to Chicago, and by the Pennsylvania from Pittsburg to Chicago. The alignment is to be changed and grades reduced to a maximum of twenty-six feet. It is expected that within twelve months the old Baltimore & Ohio through line between Chicago and the Atlantic Ocean will have passed away and the new line via Pittsburg be established, with no greater grades or curvature than on any of the trunk lines.

Work has already begun east of Pittsburg to meet improvements making west of Pittsburg. These improvements will consist of additional second and third tracks, a general correction of the alignment and completion of the double track on the Metropolitan Branch. It is expected that the new through line will be ready simultaneously with the completion of the Belt Line through the city of Baltimore, which is intended to unite the Washington branch with the Philadelphia division and do away with the present line via Locust Point. Forty new and powerful locomotive engines were added to the equipment during the last two months, and others are in process of construction. The permanent improvements now under way and in contemplation involve the expenditure of some \$5,000,000.—*Baltimore American.*



WANTED—POINTERS ON MIXING.

I want to correspond with grain men who have experience in mixing grades of different grains with a view to getting their opinions on mixing for the different markets.

C. S. C., care AMERICAN ELEVATOR AND GRAIN TRADE.

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We want traveling salesmen who sell grain, etc., in the New England states to correspond with

S. WADE, Arcade, Wyoming Co., N. Y.

POSITION WANTED.

Position wanted as buyer and manager of elevator. Have had 25 years' experience. Can furnish A No. 1 references and bond for any reasonable amount. Am a rustler and will give satisfaction or no pay. Address at once

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Jennings' New England Telegraphic Cipher and Directory of the grain, feed and flour trade of New England can save you 25 per cent. more than any other cipher. It is the most practical book for doing a New England business. For sale by

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A thoroughly competent grain elevator man, who has had several years' experience in the elevator business, who is not afraid of work, with best references as to honesty, sobriety and good character, fully competent of taking charge where a reliable man is needed, wants a situation. Address

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I own four quarter sections of land in Russell, Wichita and Kearney counties, Kan., and Franklin county, Neb. Titles guaranteed. All or part of which I desire to exchange for an elevator and residence in a good grain district in Eastern Nebraska or Western Iowa. Will give a fair trade. Will parties replying to this advertisement give full description and price of their property. Address

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DAVIS GRAIN TABLES.

The value of wheat or any grain at 60 pounds to the bushel, for any amount less than 100 bushels is shown without addition or multiplication, and for any amount over 100 and under 1,000 bushels, with but a single addition; at any price from 25 cents to \$1.25 per bushel. The value of bushels and pounds of other grain also is shown at 56, 48 and 32 pounds to the bushel at any price from 15 cents to \$1.50 per bushel. Price, postpaid, \$1.25. Address

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Kingsley's Directory is the only complete work containing the name and address of every firm engaged in the following lines of business: Grain, milling, flour and feed, hay and straw, butter and eggs, fruit and produce, malting, brewing, distilling and poultry. New edition, thoroughly revised. Over 500 pages octavo, substantially bound in cloth. Indispensable to those who wish to reach the lines of business named above. Price \$3.50. Sent postpaid on receipt of price. Address

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Grain Merchants,
29 and 30 Produce Exchange.

TOLEDO, O., June 28, 1893.

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Yours truly,

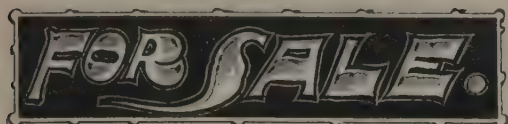
[Signed.]

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One No. 3 Barnard & Leas Warehouse Dustless Wheat Separator and one No. 5 Excelsior Oat Clipper, Separator and Grader combined; both machines in good condition, about as good as new, for sale cheap. Address

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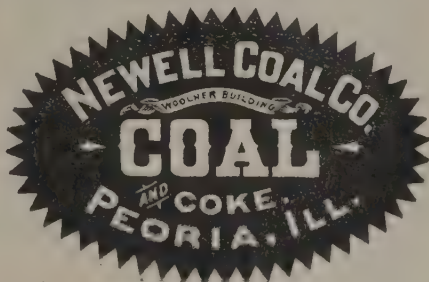
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GENERAL****Commission Merchants,**

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Big demand World's Fair year for all kinds produce. C. H. DURAND, Treas.

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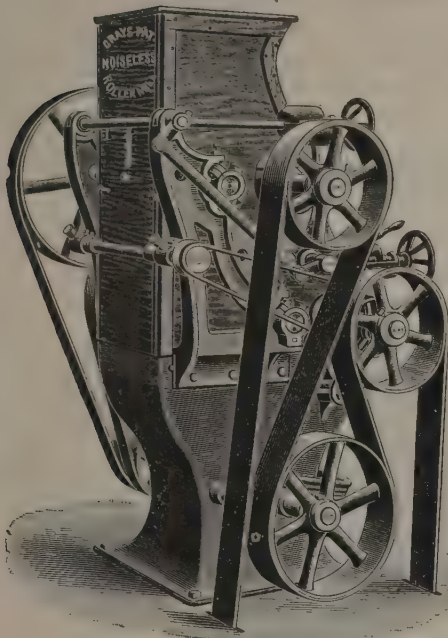
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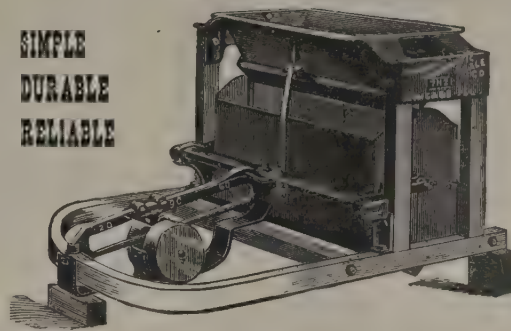
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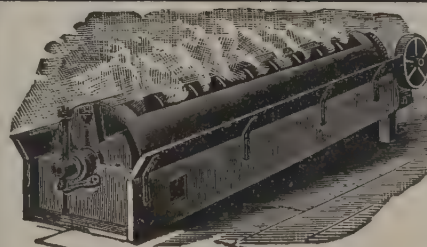
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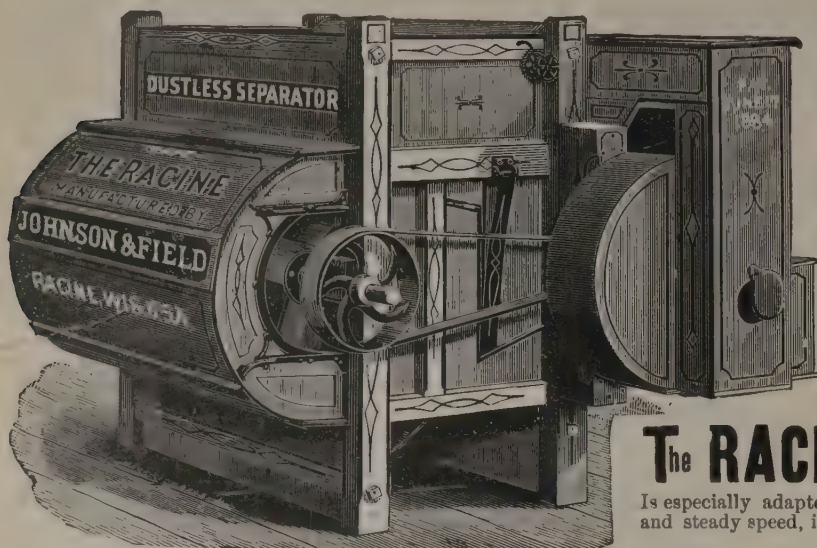
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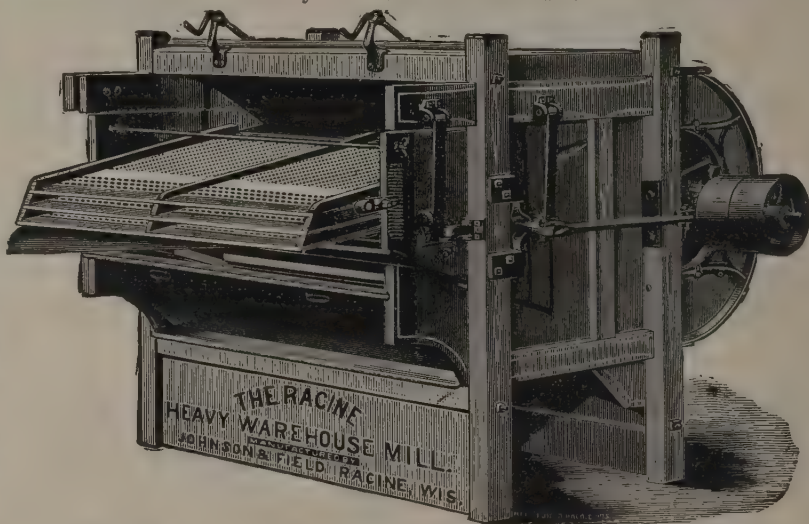
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No Engineer! No Boiler! No Fire! No Smoke! No Ashes! No Danger!

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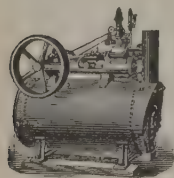
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Send for our catalogue and prices before placing your orders.

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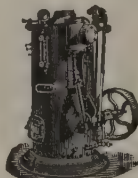
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FROM THREE HORSE POWER UPWARD.

Illustrated Pamphlet sent free. Address,

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Manufacturers of
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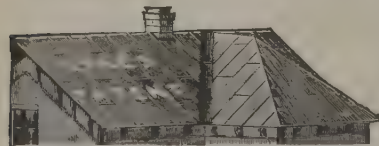


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Best Roof on earth. Suitable for all buildings and very easily applied. All our iron and steel is re-rolled and box-annealed, and painted with the best of paint and pure linseed oil. We manufacture all styles of crimped, corrugated and beaded iron, etc., and make extremely low prices on carload lots. Write for prices and handsome catalogue, mentioning this paper.

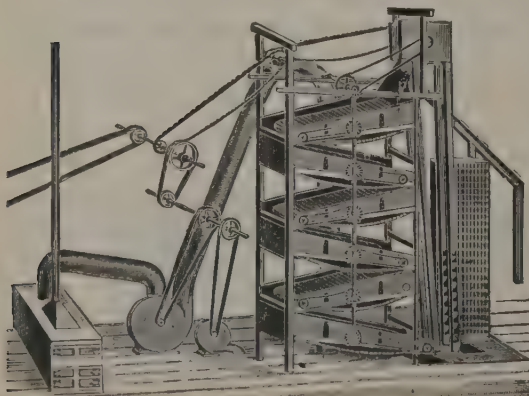
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APPROVED APPLIANCES FOR

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Builder of Dryers for Grain, Brewery Grains, Refuse from Glucose, Starch and Distillery Works, Etc., and Manufacturer of Elevator Buckets.



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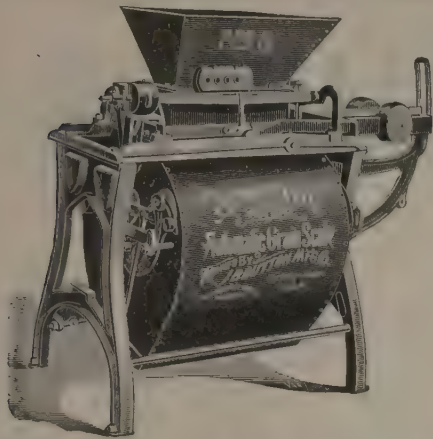
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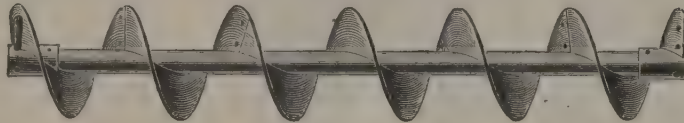
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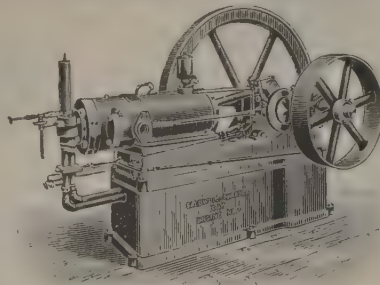
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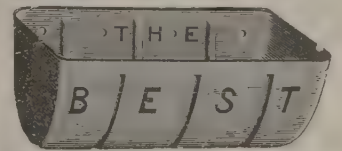
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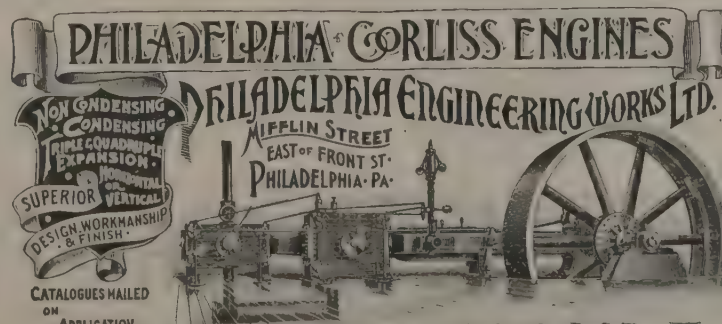
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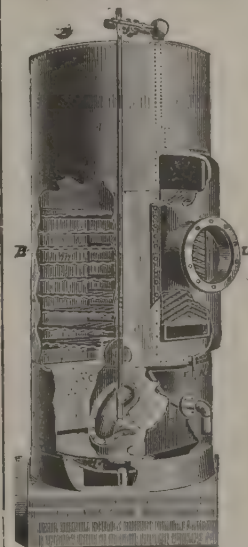
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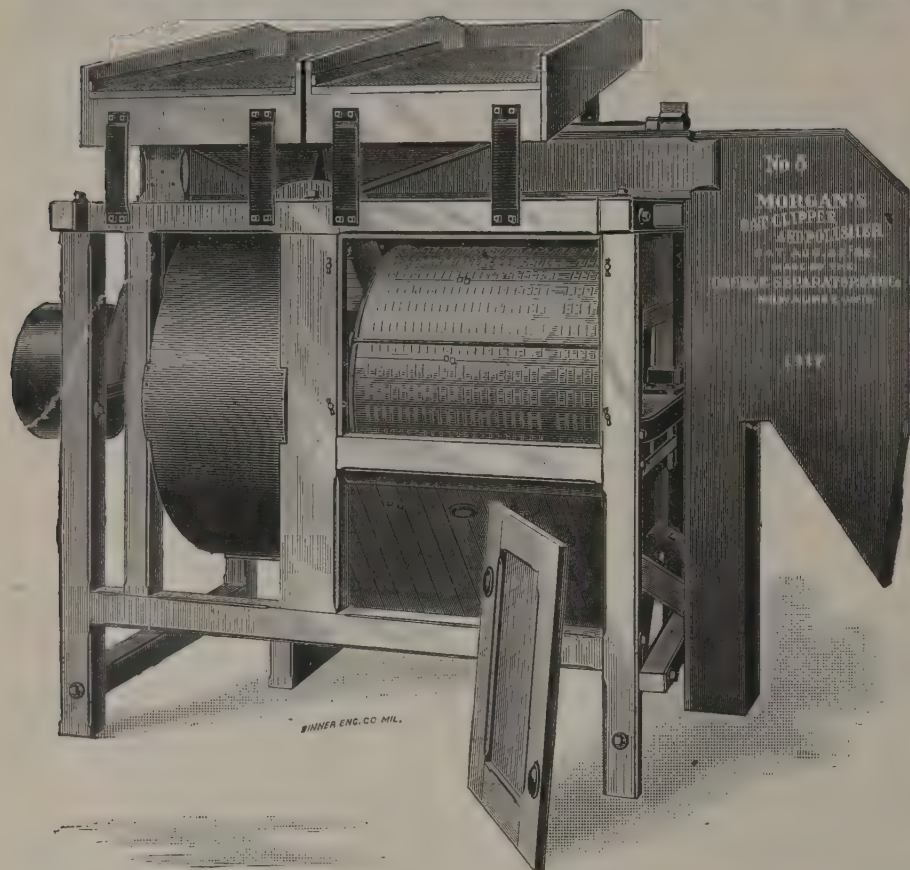
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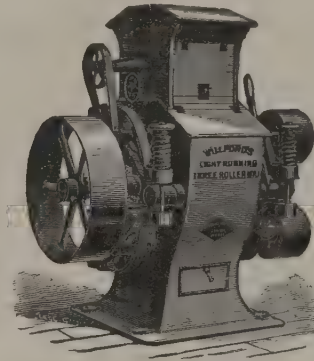
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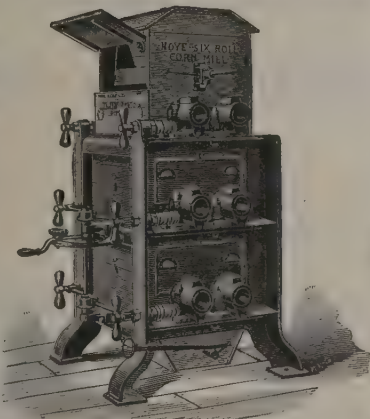
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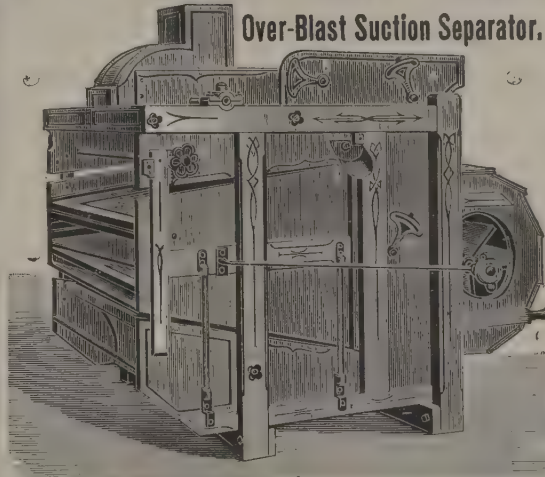
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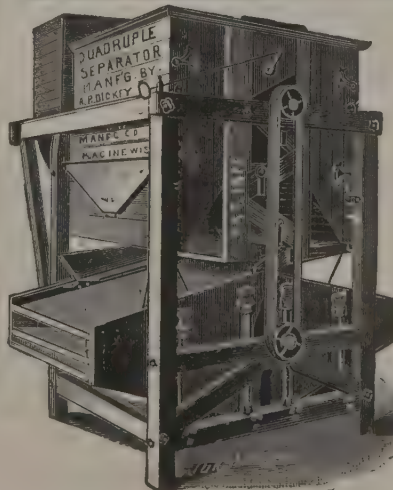
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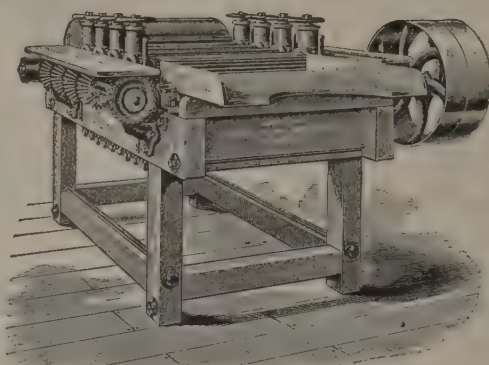
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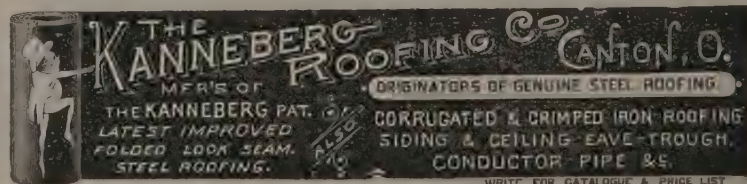


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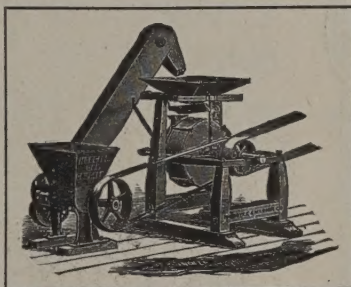
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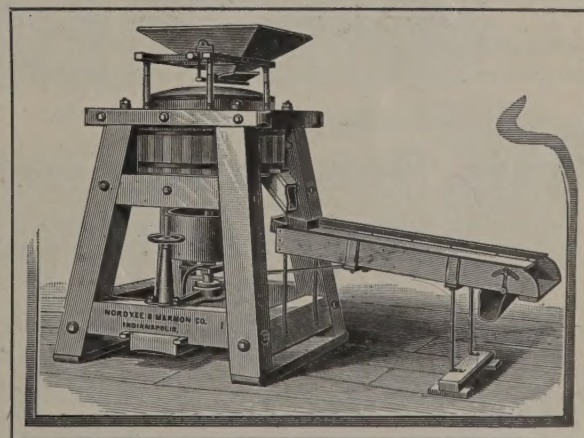
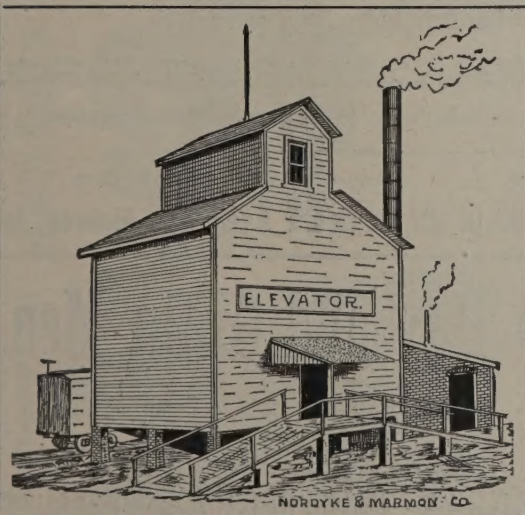
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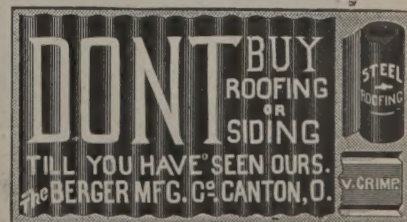
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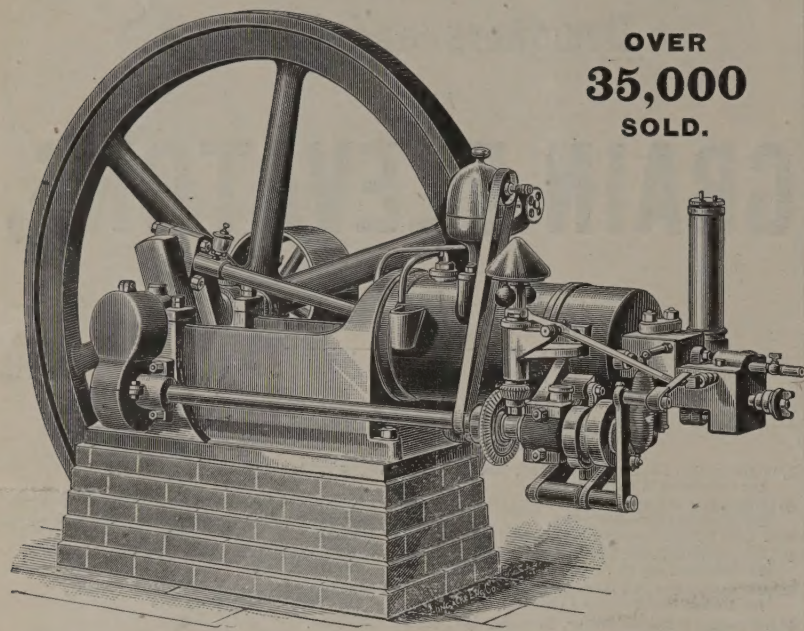
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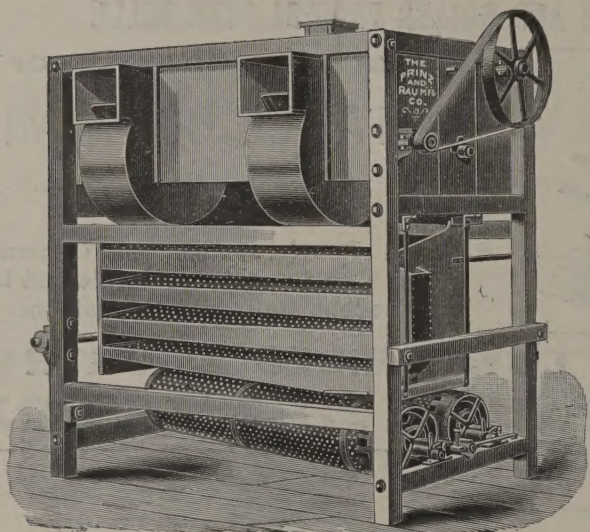
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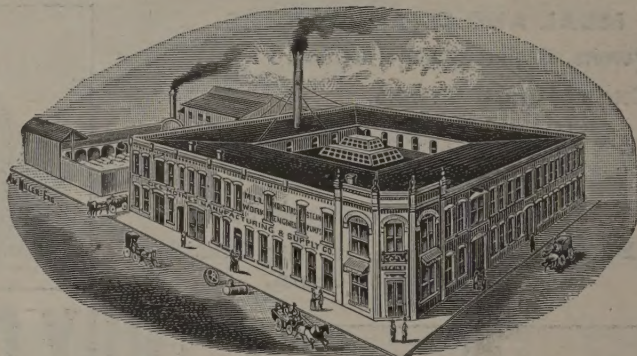
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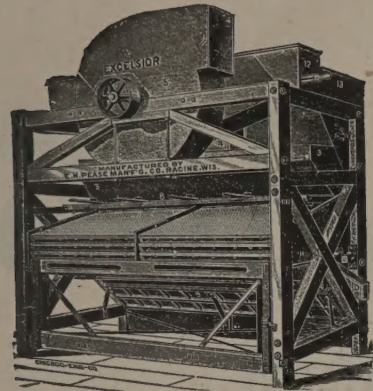
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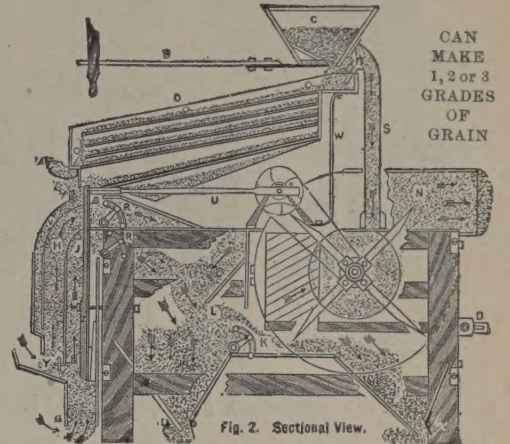
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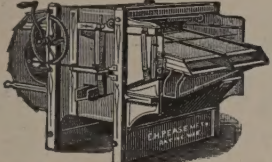
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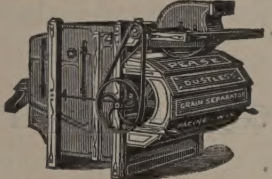
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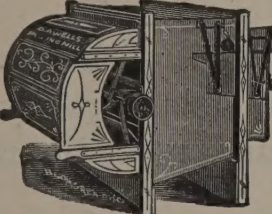
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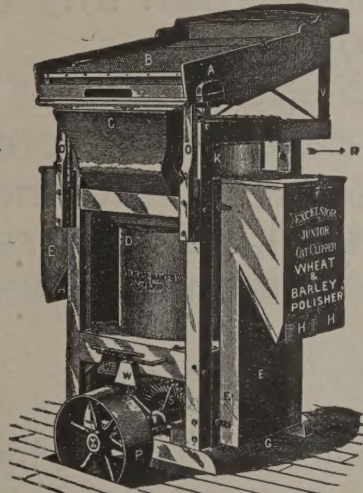


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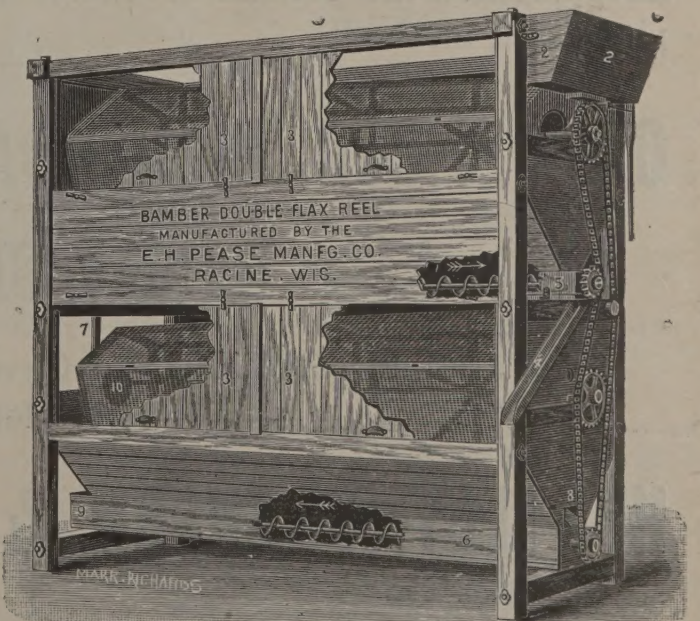
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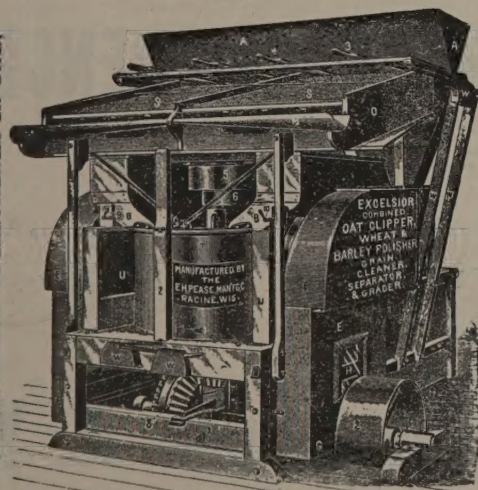
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